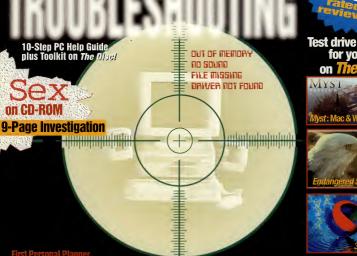
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FIRSTWORD

"Your disc works as promised. And I love the tie-in between the disc and the mag. Great job. Keep up the good work." - Ben Cavanaugh, San Rafael, California

"What a waste. I couldn't get most of your demos to run. I got plenty of error messages, though: Insufficient XMS/EMS memory, DMA buffer=036 is not enough, and drivers are missing in different programs. I'm canceling if your second disc isn't better." - Mark Burrell, Arlington, Texas



In reading hundreds of on-line messages, letters, and faxes in response to our first issue of The Disc!, one thing is clear. Our disc has been blessed by some, cursed by others, and, for many,

involved some file tweaking. All in all, we're very pleased with the overwhelmingly positive response. But the bottom line, folks, is this: Multimedia, particularly for PCs, is not a neat and tidy little package. We understood that going into this project, and many of you have recently made that discovery for yourselves.

The PC, or IBM-compatible, environment can be a frustrating world in which to work. Unlike the elegant Macintosh, which offers a clean, uncluttered environment and a single, well-unified operating system, the PC is served by two masters - DOS and Windows. (We work on both PCs and Macs here. and the point is driven home daily.) Nonetheless, the DOS/Windows market is much, much larger than that of its more erudite counterpart. And until Plug-and-Play is a reality in the PC world, there are lots of us that will be dealing with system tweaks, fiddling with start-up files, trying out alternative video and audio drivers, and more,

Why is the PC environment so kludgey? The simple answer is that while Apple kept tight control of the Mac, IBM offered an "open architecture," which

allowed the free market to devise new boards (motherboards, video, and audio), new drivers, and consequently new demands on memory and system files. Improvements in quality also meant an increase in confusion. Even software companies got into the act, supplying their own file modifications to help you run their ambitious, new programs. Then came Windows. A welcomed Macinspired alternative to the DOS C:> prompt, but not suited to many programs, particularly high-end games, that need total control of your system.

PC multimedia in 1994 is not pretty. but it's the reality we all deal with. Windows 4.0 and Plug-and-Play promise to eliminate most of the problems, but not until at least 1995.

Meanwhile, we're working with you. Our cover story on troubleshooting will surely help, and we've made adjustments to this issue of The Disc! to help simplify matters. But stay in touch - your feedback is a crucial part of the success of both the magazine and The Disc!

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CD-ROM*Todav*

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Some Thomas and Th



We feel sure you're going to have a lot of fun exploring CD-ROM Today's very own CD-ROM, because we've packed this second issue of The Disc! with an exciting mix of today's top programs for both Mac and PC users

In these pages you'll find a guide to what's on The Disc!, the guickest way to get the programs started, and tips on how to use them. You'll also find more help files and other documentation on The Disc! itself.

Let's get started then with...

ome to an interactive demo of the beautiful and captivating adventure game, Myst. You can read more about the game itself in our review starting on page 92 of this issue

The demo of Myst for the PC and Mac that you'll find on The Disc! includes the entire Library section from the first part of the game. This is an important room, because it opens doorways (literally) to many other crucial clues and places.

After you've installed the Myst demo, you'll see the Myst Preview screen, showing Myst Island and some of the fantastic structures that dot the landscape. You'll also see two buttons, one marked "SNEAK PREVIEW" and the other, "SCENES FROM MYST.

If you move the cursor arrow to the latter button and click, you'll view an excellent slide show of images from the game. The only warning we offer is that you'll see some places that you might prefer to view for the first time yourself if you end up buying the complete game. But the

slide show doesn't really give anything away. When you move the cursor to "SNEAK PRE-

VIEW" and click the mouse button, the demo will begin with an introductory section that sets the scene for you. After that, you'll find yourself in the Library and can begin to look around. Moving around in the game is simple. Click

the mouse button on the area of the screen toward which you wish to move. To go left or right, move the cursor to the sides of the screen.

In the demo, you won't be able to travel out of the Library. But there's much you can do in this one room.

Tips

- · Go to the blue and red books and pick up the pieces of paper next to them by clicking the mouse. Then click either of the books to read them. (Note: A few computers may have difficulty running the videos in these books. Most systems handle it well.) · At the bookcase, try clicking on several books

and then read the notes and commentary inside them. Turn the pages by clicking on them.

. If you click near the top of the screen, the beautiful ceiling will appear.

This is just a minute portion of the game itself, a fascinating, atmospheric world.

Installing Myst

On the Mac, drag the Myst Preview file icon onto your hard drive, then double-click it to launch the demo. Each time you start the demo in the future, simply double-click the Myst Preview from your hard drive. You must have The Disc! in your CD-ROM drive whenever you play the demo-

On the PC, from CD-ROM Today's Windows-based user interface, move the screen cursor to the INSTALL icon and click once. Then follow the instructions that will appear on the screen. The Windows installation requires approximately 1.6 megabytes of space on your hard drive, and creates a subdirectory named MYST DEMO, A MYST DEMO icon will be created in a



me, the island is also the gate-

way to other worlds









can't go out there in the demo. To the left of that is a blue book that contains an interesti video. Click on the loose page next to the book to pick it up then click on the book to read it.



This is Sirrus, one of the two sons of Atrus and Catherine. What is Sirrus trying to say? And why is he in the red book on the wall?



Ouick Start for PC Users

- 1. From the Windows' Program Manager, click on File and select Run. In the Run window, select Browse and change the directory designation to your CD-ROM drive (usually D: or E:).
- 2. Select 'install.exe' and click the OK button.
- 3. This will install The Disc! user interface and place a new icon in a CD-ROM Today program group.
- 4. Double click on this new Disc icon to run the CD-ROM. Note: Once installed, the same icon can be used to play future issues of The Disc!

Hardware Requirements for The Disc!

PC version (minimum): IBM/Tandy or 100% compatible: 386SX: SVGA (640x480, 256 colors): 4Mb memory: Windows-compatible sound card.

new program group subdirectory called Broderbund Software, During the installation, a very beloful README file will be accessible, with information on sound cards, memory and related information.

(Note: If you experience problems during installation from The Disc!'s interface, you can install Myst directly from Windows by running "install.exe" from your CD-ROM drive. It is in a subdirectory called "myst").

Each time that you play the demo, you must have The Disc! in your CD-ROM drive. To launch Myst, go to the Broderbund Software program group icon in Windows, double-click to open it, and then double-click on the MYST DEMO icon.

Special Requirements

PC version: IBM/Tandy or 100% compatible: 386-33s): 4 megabytes of RAM: Windows 3.1: double peed CD-ROM drive recommended; Sound Blaster or Mac version: 256-color Macintosh; System 7.0.1 r higher; CD-ROM drive; 4 megabytes of RAM.



The closeup of the map of the island is on the Library wall. You can see the location of a number of places, including the library, observatory, dock, and sculpture garden.



selecting from the File menu

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Program Description

READ ME







File Edit Find Character READ ME: Using The Disc!

When you click on any of these icons, a new function will occur, such as this READ ME text. When the icons are active, you'll see them in color, when inactive, they are grayed.

Il Alternative: If you're unable to run The Disc! following the steps under "Quick Start for PC Users" above, try this: Open the File Manager (within Windows' Main subdirectory). Click on the drive designation for your CD-ROM drive at the top of your screen. When that displays The Discl directory, double-click on the "Magazine" subdirectory. Within that subdirectory, double-click on the "frontend.exe" file. That should load The Disc's user interface."

DOS-only Users: The Discl is meant to run from Windows. If

Also, please note that the user interface is optimized to run in an SVGA video mode, rather than a VGA or lesser video mode. If you do have VGA rather than SVGA, the interface will of the box outlines that are normally part of the system

If Nothing Works....

We cannot provide technical and customer support for problems you may encounter with the many different programs and demos on The Disc! But, should your copy of The Disc! fail to run at all, with error messages that indicate that your CD-ROM drive cannot read The Discl. return the disc to the following address for replacement: The Disc! Replacement, CD-ROM Today, P.O. Box 29364, Greensboro, NC 27429. (Do this within the first two weeks after receiving The Disc! since supplies are limited.) Please indicate what error message you received when your drive failed to read The Discl.

We would also very much like to receive your letters concerning The Disc!. While we cannot respond to each of them, they will help us serve you better in the future

Quick Start for Mac Users 1. The Disc! uses the familiar Macintosh desktop to display its contents.

- 2. Put the disc in your drive, wait for the icon to appear, then click on it...
- 3. The Mac contents are arranged in a hierarchical folder system.

Special note: Many of the text files on The Disc! are too large to load into TeachText or applications with restricted file sizes, like Cloris Works, but any major WP (such as MS Word or Nisus) should load and display them without difficulty.

Hardware Requirements

Mac version (minimum): 256-color Mac LC: System 7: CD-ROM drive: 4Mb memory

Computer Key









DISC

The Living Books

The Living Books series from Broderbund offers a delightful approach to interactive learning for youngsters.

On the previous Discl,

we were able to offer
Macintosh users interactive
demos of two of the titles,
The Tortoise and the Hare and The New Kid on the

Block. This time around we've got three more for Mac users, Arthur's Teacher Trouble, Just Grandma and Me, and the new Ruff's Bone. For PC users, we have all five demos on this Disc!.

Each of them is intuitive to use and consists of an introduction and the book's first page. But there's a lot to do on that page! Move the cursor around the screen, and click the mouse on just about everything for hidden surprises.

PC users can install the first four program icons in Windows from CD-ROM Today's front-end user interface by clicking on the INSTALL button. (If you have any difficulty with this procedure, simply use the Windows File Manager

to RUN the "install.exe" file that you'll find in a subdirectory of your CD-ROM drive called

"lbooks.") Once the program icons are visible in Windows in a program group called Broderbund Software, double-click on each to launch a demo. To run Ruff's Bone, click on the LAUNCH button from our user interface.

Mac users double-click on the demo icons that can be found in the Living Books folder inside another folder named Edutainment.

To exit from any of the demos, ppress Alt-F4 on the PC and Apple-Qo n the Mac. The Living Books demos require a 256-color Mac.

Gus in Cybertown

This colorful edutainment program is the first effort from Modern Media Ventures, and features Gus the dog and his friends in Cybertown. By visiting various stores and the town park, chidren use games and related activities to learn a variety of facts, practice their math, work on spelling, and get a bit of historical orientation through a human timeline. There's a variety of lessons to be learned along the way. You'll flight a roview of the program on page

TuneLand

There's a lot going on in our interactive demo from TuneLand. Even though it's only one scene from the full game's eight scenes, you'll be surprised by how many songs, characters, animations, and sound effects there are.

> Move the screen cursor around and click on everything. Or, you can wait for things to happen. There's always something happening in this kitchen, with children's singalongs including Three Blind Mice, Patty-Cake, I'm a Little Teapot, and more.

TuneLand is the first effort from a company called 7th Level, and if you read the article in CD-ROM Today's last issue, you know

it's a delightful pre-school edutainment package. There's an excellent readme file available about the demo. Press the READ ME button on The Disc!'s user interface, or you can find the readme.tx file in the "uneland" subdirectory on your CD-ROW drive.

You can run the TuneLand demo directly from the CD-ROM drive by clicking on LAUNCH from The Discl user interface, or you can run a setup program by clicking on the INSTALL button. More details are available in the file you reach by clicking on READ ME.

Try clicking the mouse cursor on everything in this busy TuneLand kitchen you'll find on The

The latest Living Book is Ruff's Bone, and we have an

interactive demo on The Disc! for PC and Mac.





Visit the stores and the park in Cybertown in this low title for children 3 to 8.

110 of this issue. While our reviewer had some reservations about the title, other reviewers have recommended it. Judge for yourself in the limited-use version on The Discl.

In our demo, you can visit each of the stores and the park, and hear the sounds, music, and digitized speech.

On the PC, start the program by pressing the LAUNCH button from our Disc user interface. If you encounter any difficulties, then use Windows' File Manager to mr. gasdemo.ces' from the Gus subducectory on your CD-ROM drive. Mac users will find the program within the Edutainment folder on The Disc? desktop.

Forever Growing Garden



Reviewed in our last issue, Forever Growing Garden is a charming, highly rated children's learning program.

Sit back and take an animated ride through a rolling demonstration of this childrens' edutainment program. The demo leads you through all of the areas of Media Vision's Forever Growing Garden and shows off the different activities that make up the program.

Our demo can be set up so that there's a Media Vision program group in Windows that contains the Foreer Growing Garden icon. However, we recommend that you run this brief demo without going through the setup procedure. Move the screen cursor to LAUNCH on our user interface, and you're off. If you have any problems running the demo, click on the READ ME button on our CD-ROM Today interface.



FOR ONCE THE CRITICS AGREE.



The New Grolier Multimedia Encyclopedia runs on Windows/MPC, Macintosh and MS-DOS. They tested them. They explored them. They reviewed every feature. And what did the experts conclude? When it comes to CD-ROM encyclopedias, the New Grolier Multimedia Encyclopedia has no equal.

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make the New Grolier Multimedia Encyclopedia the critics' choice. And they're why the experts at Library Journal state it this clearly: "...if you can buy only one CD encyclopedia, buy Grolier's." To find out more, call tollfree 800-285-4534 today.





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Product Information Number 113



Jasmine Videos

there are 16 video clips on The Disc! from Jasmine Multimedia's How to Create Multimedia training course. These wide-ranging videos include clips of cars crashing, a Saturn rocket launching, skiers, Mae West, special digital effects, and even a segment of the 1974 resignation speech given by the late President Richard Nixon. They are all royalty free, and great for use in multimedia sales or educational presentations, or just for fun.

In order to run the videos, you will need to have a runtime version of Microsoft's Video for Windows program. We've supplied one on The Disc!, From the CD-ROM Today interface, select the Jasmine .avi file that you wish to see, and then click on the LAUNCH button. This will start the Video for Windows runtime program and present you with a video player that works in a similar fashion to

Society of Mind

rtificial-intelligence pioneer Marvin Minsky is your host in this multimedia version of his book, The Society of Mind, an exploration of how Minsky believes the human mind works.

Voyager has specially created a version of the entire 22-page prologue from this "First Person" title for CD-ROM Today. In it you'll hear and see Minsky discuss how we view the mind. You can read the text, and click on hot buttons that reveal

more information. In this issue of the magazine, you'll also be able to read a review of the complete program on page 87 and learn more about it in Steve Anzovin's "Mac-Inations" column on page 37.

To run the prologue, open The Society of Mind folder and click on The Society of Mind icon. When running

this program, it's necessary to make a change to your HyperCard Viewer - the one that comes with every Mac. The Hyper-Card Viewer needs to have its Preferred Memory setting at 3000. Highlight the HyperCard Viewer icon, then go to Get Info in the File menu, and on the bottom line change the Preferred Memory setting to 3000.

Jump and A Hard Day's Night

ac readers will find two multimedia "trailers" on The Disc!: Jump, a rolling demo of David Bowie's new interactive CD-ROM from Ion, and A Hard Day's Night, Voyager's multimedia trailer of the company's Beatles CD-ROM.

Jump should be ready for release about



Change the Preferred Memory setting in HyperCard Viewer to 3000 for The Society of Mind and A Hard Day's Night.

Reporter: "Tell me how did you find America? " John Lennon: "Turn left at Greenland." A Hard Day's Night has

already become a CD-ROM classic.

the time you read this, and our rolling demo will give you a good idea of just how interactive this disc will be. In the final product, you'll have a chance to actually edit Bowie's videos and music

A Hard Day's Night has been in release for some time, but Mac users who are new to CD-ROMs or just haven't seen the title will be fascinated by this mixture of music, movie, and research material.

You'll find both demos in the Multimedia folder on The Disc!



ton's Jump looks like a lot of fun for David

Bowie fans.



Multimedia Toolkit (PC only) - You'll find on The Disc! the tools you need to check out a variety of areas on your PC system (and sneak up on those pesky interrupts), as well as creative packages to help you manage, massage, and manipulate graphics, sound, FX, and text into your own multimedia presentations.

Z-D-Intor



This rolling tutorial demo is an excellent introduction to the tools and techniques of 3-D animation. Our review of the full program in the magazine this issue can be found on page 105. On The Disc, the tutorial gives you a good overview of 3-D modeling, motion control, rendering, and assembly. In the Multimedia folder, you'll see the 3DT-Quick Tour ison. Click on it to begin.

The Quick Tour requires eight megabytes of memory, a 13-inch or larger color monitor. Although some Mac users will be unable to access the demo, the quality of the package is such that we wanted to bring it to those whose systems can handle it.

MindQuest: Medieval France

Mindquest: Medieval France is part timemachine, part gorgeous travelogue, and partly a rewarding audio-visual presentation which reconstructs an era long past. It utilizes the resources of CD-ROM to recreate a multimediascape of France in the legendary Age of Chivalry and Faith.

From its opening screen—an overview map of France in the 12th century—you can



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ORD IC: Influence |
ORD IC

Glacionbury
Glantonbury - Nave and Lady Chapel
Here you can get an idea of the
length of the nave, which sace



point-and-click to zoom in on areas that intrigue you, or use the clearlylabeled pushbuttons along the top of the screen to navigate around this rich AV historical database.

You have the

freedom to follow the whims of an armchair traveler, take a guided tour along a more organized timeline, or explore a theme (for example, Gothic architecture) that is of particular interest.

This demo gives you a taste of the full program which contains more than 600 color shots, videos, text descriptions, voiceover narrations, and a score of medieval music.

This requires no special installation and will run directly from our disc — push the launch button and you're off! There is a read me file within the program that provides more information. If you have a problem launching the program from our user interface, click on the READ ME button for an alternate process.

Endangered Species

This Windows and Macintosh interactive demo contains some of the images, narrative, and research information from ZCI Publishing's PowerCD directedlearning product, The Encyclopedia of Endangered Species. You can read more about the PowerCD system in this issue of the magazine, starting on page 62.

One of the great things about a Power-CD is that it doesn't have to be loaded onto your hard drive; you can run it straight from the CD-ROM. However, Windows users can install a PowerCD icon and have an option to load in a Windows screen saver. The demo will still run from the CD, however.

PC users install the icon by clicking on the INSTALL button on the CD-ROM Today interface. This will place a PowerCD icon in a program group of the same name. During installation, there is a box to check if you wish to have the screen saver added automatically to the Windows screen swere list in the Desktop subdirectory. You can also just run the demo without installing by clicking on the LAUNCH button from our



Macintosh users click on the PowerCD icon located in the Endangered Species folder. Both systems run identically. Start by listening to the Overture. which includes color photos of a number of endangered species. From the

interface.

Overture, you can follow your interests via the access buttons.

Our Endangered Species sampler on The Disc! shows off the PowerCD directed learning system.



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Product Information Number 201



Theme Park

an you build and run a successful amusement park? You'll get your chance with Electronic Arts' Theme Park. You'll run the business, from placing the rides and walkways to setting ticket prices and putting up concession stands.

The game sample on The Disc! offers 20 minutes of play before it ends. But you can always start over again. The game will support other sound cards, but for this demo we recommend Sound Blaster or Sound Blaster compatible. As with most PC games, you'll need to leave





There is a very good hands-on rial at the start of the is and you'll quickly learn



the CD-ROM Today front end and Windows. From the "theme" subdirectory on your CD-ROM drive, type "install" and press the Enter key. This will start the automatic installation program that places Theme Park on your hard drive. You'll need

at least four megabytes free on your hard drive for successful installation. Follow the on-screen directions. To help you remember the tool bar functions, see the graphic at top right.

Theme Park's Tool Bar

aths: Use the right mouse but ton to menu of different paths that people can take and the left button to select and place sec-

tions of

oath.

this to choose and place the rides. Be sure to place an entrance and an exit for

each ride

The nlace aood!

Shops: Put up concession stands to keep kids happy.

Callinas: These are used to make queues at the entrance to your rides. They must connect at some point to a path.

Staff: Use this icon to hire and place your staff. There are three types of employ-ees in this demo: Shark Man, the park's lovable mascot: Handy

Man, the trash and grounds guy; and Mechanic

who keeps things

working and safe

will keep you updated on a lot of things.

> Happiness: Just how happy are your customers? What are they thinking?

oney: Handle all the financial details here. from setting ticket prices to paying debts

ap: Click here for an overhead view of the entire park to see how successful you're becoming.

Spear of Destiny



Two complete levels from the Spear of Destiny ad ture are on The Discl.

hose of you who enjoyed the non-stop action of the shareware version of Wolfenstein 3-D on our first disc, will be happy to know that, thanks to Formgen, we've got even more shoot-'em-up Wolfenstein action this time around with Spear of Destiny.

On The Disc! you'll find a complete two-level playable version of this Wolfenstein 3-D graphic adventure. There are 18 more levels in the complete game.

To install the game to your hard drive, leave Windows and go to the Spear subdirectory on your CD-ROM drive, usually D: or E:, From within the Spear subdirectory, type "install" and follow the directions. For more information about Spear of Destiny, click on the READ ME button on our user interface. You'll find the details of setup, playing the game, some playing tips, and more.

Spectre VR

pectre VR from Velocity Development is an action game that takes place in cyberspace. and puts you at the helm of an attack vehicle called a spectre - one of a number of polygonal battlecraft that zoom around a grid-lined landscape shooting at each other. The goal is to collect all the "flags" dotting the landscape before you're blasted by enemy robots.

The full version includes network multi-player modes and is also available for DOS and Windows users. Our demo is for the Macintosh. but gives you quite a bit of game play.

To play our sample version, double-click on the Spectre VR icon in the Entertainment folder on The Disc!'s desktop. The game interface is menu-driven and features a good on-line description of the command controls.

There's a Read Me First! file that gives you some information about Spectre. Give your Mac as much RAM as possible; it's a demanding game.



Disc!

Remind Me.

This delightful little reminder system is surprisingly flexible, and features the images, voices, and sound effects from the Looney Tunes gang, Bugs, Daffy Duck, Elmer Fudd, the Tazmanian Devil, and

Daffy Duck, Elmer Fudd, the Tazmanian Devil, and the other 'toons pop up in your Windows environment to remind you of anything and everything.

our infinited use version gives you the full functionality of the complete program from Velocity Development, but limits you to just four

limits you to just four reminders at a time and disables the Save function.

To use the program, click on the LAUNCH invading your PC with our Renind Me program on The Disci.

"remindme.exe" in the remindme subdirectory on the CD-ROM. If you wish, you can install the program to your hard drive by copying the files from the remindme subdirectory your CD-ROM drive to a subdirectory you create on your hard drive.

The program takes 4 megabytes of RAM, but doesn't tax system resources to run. There is more information in a brief readme file you access by pressing READ ME from our user interface and an excellent HELP file which you can access from the program by clicking on the HELP button.



If Interno plays as well as it looks, Ocean has a weer. See our video trailer on The Disc!

3-D Body Adventure

Inowledge Adventure's latest program in its series of 3-D education titles lets you explore and learn about the human body through several games and interactive visual truts.

Our interactive sample from the full program gives you the opportunity to have fun with two games and two viewing areas. 3-D Body Theater offers a three-dimensional flyby and fly-through of the human body with narrations about body parts and systems. In our demo, the exploration is limited to the brain. 3-D Body Viewing Screen lets you rotate various organs and body parts in three dimensions, with additional information available on each topic. The sample on The Disc! is of the heart and the hand. (The full program comes with 3-D glasses that work with some parts of the product.)





Take an entertaining tour of the human body with 3-D Body Adventure.

levels that are in the full program. A narrator explains how to get started.

explains how to get started.

This program must install from DOS, not from Windows. You will need to exit the

will need to exit the CD-ROM Today interface, quit Windows, and go to the DOS prompt of your CD-ROM drive. From there, you change to the "bodydemo" subdirectory by typing cd bodydemo and then press the ENTER key. Type INSTALLEXE and follow the instructions.

demo does modify some of your system files, including CONFIG.SYS, SYS-TEM.INI, and WIN.INI, and also takes up about 4 megabytes of harddisk space. If you are not comfortable with changes to those important

NOTE: This

not running the demo. You are given the opportunity to create a program group in Windows so that you may subsequently launch the demo from Windows. We recommend that you simply run the demo from DOS. There is a very good READ ME file of information about hardware and memory requirements that you can read by pressing the READ ME button from the CD-ROM Tadde interface.

try your hand at making the right medical decisions for patients in a hospital's emergency room. While the demo here doesn't permit full play of the game, it does give you access to patients' diagnosties and to explore the hospital itself. Body Recall lets you test your visual memory in a "Concentration"-style game in which you try to match the name of a body part with the correct picture. Our sample gives you the first level of three

Emergency Room is a game in which you

oureiul

US

Herés a sneak peek at Ocean's upcoming futuristic flight-combat simulator, Inferno, featuring some of the best 3-D graphics animation and polygon-mapping techniques we've seen. Ocean will release disk and CD-ROM versions of Inferno.

Our demo is visual only — no sound or

music — just the stunning graphics. Sit back and watch this beautiful trailer. (Although the demo states that there is music, Ocean had not released a stand-alone demo with music at press time.)

The visuals require quite a bit of memory to run. Free as much memory as possible. To exit the demo, press SHIFT and Q keys.

To start, exit Windows and go to the "inferno" subdirectory on your CD-ROM drive. Then type "inferno" and you're off.





Grand Prize Winner: The Apple-Japan CD-ROM Award Chosen over IRON HELIX, HELL CAB, and MYST.

"Downright outrageous."

- Inside MacGames

elcome to the future. America's on close-out sale. Everything's going to hell on afterburners. The Skins and the Neos have stolen the last gene samples of Earth's wildlife. If you ever want to hear a bird go tweet again, you'll have to do something fast.

Fire up your hovercraft and

blast through an incredibly realistic. arunay 3-D New Yorkof-the-future in a non-stop firefight. Your hand-picked

co-pilot is screaming with attitude. Your custom-chosen soundtrack is turning your brain to plasma.



The Weapons Lady has 24 different forms of destruction for your selection...if you can handle it. All you've got to do is stay alive long

- MacHome Journal

enough to save the world...and make a few bucks while you're at it.



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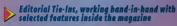
CD-ROM Today

nters & New

Big News! CD-ROM Today is introducing an exciting innovation. Beginning with our April/May issue, every issue will include a fantastic CD-ROM Disc packed with leading-edge software Imagine being able to read a detailed review of a new release inside the magazine, and then being able to explore the software for yourself on your own machine.

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Wired for Sound Pro 3.0 Limited Edition

#

M SSSAGE TO READERS: Although you will find our Wired for Sound sample program in the directory on this issue of The Disc!, the demo will not install and run due to a technical problem we encountered in transferring it to our CD-ROM. We will have the demo of this

NEXT ISSUE!

offers plenty of examples.

The special edition of

The special edition on the August/ September issue of CD-ROM Today's Disc! will have five complete working programs that give you a feel for what you can do with sound and images on the PC. There are floppy-disk and CD-ROM versions of the complete Wired for Sound that offer

hundreds of additional sounds, images, and videos, plus over a dozen more programs.

The five applications include Talking Clock with Face, a multimedia utility that puts a face on the screen that will announce time, date, and scheduled appointments; Wallpaper Changer, which lets you create your own computer desktop effects with wallpaper backgrounds that change at intervals of your choice and feature nine special effects; Sound Hook, an audio utility that includes WAV files with which you can

.WAV files with which you can personalize your Windows events; Icon Changer, which permits you to choose from 40 different icons

to replace an application's default icon; and Cursor Changer, which includes 20 new cursors.

A user manual is accessible from the program to help you learn to customize your multimedia system with these programs. Look for it next time on The Disc!.

Our limited edition of Wired for Sound offers this beautiful Windows wallpaper, among other features.

delightful program on our next issue (August/September) of The Disc!. Here's a preview of what you'll get....

Much of the fun in multimedia computing is in the bells and whistles of audio and video, and this limited edition of Aristosoft's popular Wired for Sound Pro 3.0 utility

The CD-ROM Source



If you want to get a quick idea of the varitey of multimedia titles now being distributed throughout North America, take a brief tour of The CD-ROM Source's product catalog. The interactive catalog, which gives overview information on 12 different CD-ROMs, is simple to use — just click on the hypertext 'hot' words to move around. There are product descriptions and images, as well as several samples of programs. To install a CDRS Demo icon in The CD-ROM Source program group in Windows, click on INSTALL from the CD-ROM Today user interface. If you have any trouble installing it, use Windows' File Manager to run SETUP.EXE in the CDRS subdirectory on your CD-ROM drive.

The program loads about six megabytes of information to your hard drive and does adjust your win, ini file.

Virus Free!

CD-ROM Today's The Disc! is rigorously tested for all known computer viruses by Nimbus Information Systems, one of the top CD-ROM disc duplicators in North America.

Planit Paradise

Media Vision has already published three Personal Daily Plants rerise for Windows. Each of the plantners in the Personal Daily Plants rerise for Windows. Each of the planners features digitized speech, color images, and a very flexible planning system. You can read more about the series in our review on page 112.

And then turn to The Disci to begin

And then turn to the Disc: to begin using the functioning demo of *Planit Paradise*, which features swimsuit models from Swimwear Illustrated magazine.



| March | Prince | March | Mar

To use Plantt, elick on the INSTAL button on our user interface. It will run a setup-see program from The Disel, which will install a Plantt iton and a very good readme file in a Vindows program group named Personal Daily Plantt. The planner loads approximately 3.2 megabytes onto your hard drive. The full version includes video files and animations and many more photos. The sampler version on The Disel will work for 45 days from the time it's installed and accessed.

Once you've read the information file, try setting appointments, scheduling your todo lists, and investigating the various buttons on the user interface.

Road Maps to the Internet

Setting forth on the Internet can be a very exciting and rewarding experience. It can also be quite frustrating, User friendliness was never part of the net's design specifications.

There's a lot of information to help newcomers on the internet itself... but here's the catch-22: how can you find these files if you're still not sure of how to navigate the electronic reefs and shoals of cyberspace? We've gathered together some of the most useful material on this issue of The Disc! so that you can read up on the digital highway before leaving your own drives high

You'll also find a massive collection of information on the Internet CD-ROMs published by Walnut Creek (510-674-0783) and Atlantis (1-800-285-4680). And watch for Teach Yourself the Internet: Around the World in 21 Days (published by SAMS in July) by CD-ROM Today writer, Neil Randall.

The Digital Library

ore texts, please! That was the encouraging reaction to the Science Fiction,



bookshelf included on the first issue of The Disc! This time we've gathered a library of American classies from Washington Irving to Willa Cather, Walt Whitman to Jack London, together with the full-length tests of Molypible, In Secarde Lister, and Portrait of a Lady, also acknowledged masterpieces by Thoreau and Dreiers as well as more recently rediscovered and re-evaluated works by writers like Chatother Perkins Gilman.

Although there was a small file with specific instructions of how to access the books included on the last disc, we still had a few phone calls from users who found that Window's Notepad or Mac's TeachFext griped at being asked to load 850 pages of classic literature. No application limited o a small file size; like 648 for instance, is going

Titles on The Disc! #2's bookshelf include:

- The Adventures
 of Huckleberry Finn
 Mark Twain
- Mark Twain
 White Fang
 lack London
- Billy Budd Herman Melville
- Song of the Lark
 Willa Cather
 - The Red Badge of Courage
- Stephen Crane
 Leaves of Grass
- Walt Whitman
 Sister Carrie

Theodore Dreser found in
Disc! #2!
Digital Library and let us know what kind of

to be able to

display all 1100k of Ben-Hur or 1200k of Moby-Dick. Both PC and

Mac users need to fire up an industrial strength word processor like MS Word or Word Perfect

processor like
MS Word or
Word Perfect
to view these
very large text
files. Enjoy the
stories and
poems to be
found in The
Disc! #2's

Digital Library and let us know what kind of 'bookshelves' you'd like to see included on future issues.

How to Reach Us

We're eager to hear from you and to get your opinions and ideas about CD-ROM Today's Disc!.



While we can't respond to each of you personally, we do read every word that you send to us online, by fax, and by letter. We appreciate your feedback — and want you to play a fundamental part in shaping the future contents of CD-ROM Today and The Discl.

- You can reach us at: America Online: cdromtoday@aol.com FAX: 910-632-1165
- or write to us at The Disc! CD-ROM Today 300-A South Westgate Drive Greensboro NC 27407





Classic Mac Shareware

You'll find games, applications, stacks, utilities and a collection of more than 30 TrueType in the Classic Mac Shareware bolder on this edition of The Disci. Bird Anotomy and If Monks had Macs... (pictured above) are two of the well-known hyperCard stacks included in this compendium of time-knowed Stacks included in this compendium of time-knowed shareware. You'll also find tools and manuals to help Mac users get started on the Internet – a total of 25 megabytes of fun-filled and useful programs.

If You Missed The Disc! #1

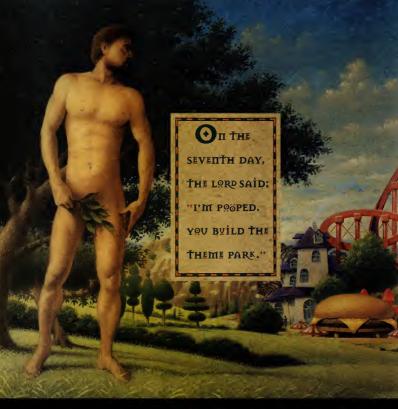
While we're pleased that we've totally sold out of the magazine, it's not feasible to go back on press to produce more of that issue. However, we can press more discs at a reasonable cost, and make them available in

However, we can press more discs at a reasonable cost, and make them available in limited supply. With Disc! #1 orders, we!! be including photocopies of the Disc! Pages from that Issue — the pages that explain what's on The Disc! and how you use it. For those interested, the price is 56.95

per Discl, plus \$1.00 shipping, handling, and packaging. Send your check/money order, for \$7.95 to:

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Issue #1 included not only some great game demos such as the Star Treli: 25th Anniversary game (entire first level) with voices by the original cast, but also a Windows interface to the Internet, more than two dozen novels, Doom 1.2 and Wolfenstein 3-D shareware versions, and much, much more





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Online Oratory

All I can say is Wowl You put a heck of a lod of effort into this magazine and disc, and I appreciate it greatly. I'll recommend your publication to everyone that has a CD-ROM, and I'll expect letting those that don't to run out and get one! Also, the books, stories, poems on The Disc are excellent! You made some top-notch choices and I for one would like to see more of this type of thing. There's only one problem., you used all your horror stuff! What's left for the Halloween issue?

ordan

Thanks for the best value in publishing! Any one of the number of demos on The Disc! are worth the magazine price. After that, it's all cake, and I love cake!

Alfred L. Whitehead

n general, you mag/CD is awfully game

Goldscout

We don't agree. Check out how much space we give to game coverage in our features and reviews sections, and compare it with other categories. On the disc, if you include edutatiment titles, there is a significant chunk of entertainment-related material, but there's a to smore. While we don't concentrate on games, we do proportionately reflect what CD-ROM software is thitting the market, and games are among the highest in sales. So, yes, we're interested in games — they push the multimedia envelope the hardest — but we're interested in all categories of software

bought the 3-D Dinosaur Adventure for my daughter because of your demo, and I really like the books on disc, as well as your selection of titles. The magazine/CD combo really works well, and the care that you obviously took compiling the CD impressed me. I tried a test-drive

CD once and it trashed my system, so I was nervous when I inserted yours in my drive. I was pleased when it worked exactly as you promised. P.S. Liked the video intros, too...especially Hudson Best's.

Larry Tollette

C an you include an installer and uninstaller

Terry Newsome

Given the almost infinite variety of multimedia and system configurations, an installation program would be anything but simple. We believe it's important that you decide how to respond to such options as altering your CONFIG.SYS or setting up new program groups.

From the most expensive application to the humblest sharewere, uninstalling is a universal problem with Windows. It's just not possible to write a simple program to cleanly uninstall any and all programs you might try off The Dise! We can recommend that you use a commercial program like Uninstaller to keep your system tidy.

Am I the only person who gets "seasick" playing Wolfenstein 3-D? Sheila McLean via CompuServe

liked the "old" CD-ROM Today, but I love the "new" CD-ROM Today! Yours is the best multimedia mag on the market. Face it, with the new Mag/CD, you're the ONLY magazine on multimedia that is multimedia.

Forze

I'm a Mac user. Mac users as a group are very loyal to their computers. We "hate" Windows and regard it a dunly, kudgey rip-off of the elegant Macintosh user interface. We dislike ports from the IBM to the Mac, because they ignore both the features of the Mac, such as its superhanding of text and graphics and its color capabilities (most IBM ports require us to set our monotors to it after than 25's Gold).

In order to sell the Macintosh users, I think you need to split off into two publications, one for the Macintosh, the other for IBM. Sorry to be so negative. I recognize that there are probably 10 IBM users for every Mac, and marketing deci-

sions may make it unfeasible to split the magazine.

David G. Olmon

Check out "First Word" in this issue. If the CD-ROM market continues to burgeon, we can consider serving both markets with manazines.

What really impresses me more than anything is your willingness to tell readers that products from your potential advertisers are less than wonderful. There are other CD-ROM interest out none, other than yours, is willing to RATE the reviewed software. That takes you, sand for that thank you. I just onto the elieve every CD-ROM is as perfect as publishers want me to helieve.

Chad Fenner

Are the books on The Disc! complete and unabridged?

Zemmy

Yes. On the April/May issue, as far as we know, all but Arabian Nights (which is a slightly abridged version of one of the many versions of that work) are unabridged.

Where, Oh, Where?

could not figure out either from the magazine or the CD: How do I access Forever Growing Garden.

Will Miller

Will Miller via Internet

we just purchased my first and probably last issue of your magazine/CD-ROM. My main reason for purchasing it was based on the information printed on the shrink wrap which indicated that it contained the classic inforom text advenure Planetful! Lan remember playing this in my pre-IBM PC days, and was looking forward to playing it with my son. I hope you can at least try to deliver what you have indicated on your overs in future issues.

Christopher Peck Apalachin, New York

We were looking forward to playing Planetfall ourselves; unfortunately, we



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needed one small technical fax before it would run from our CD-ROM, and it just didn't happen in time — of course, our plastic cover had long since gone to the printer. Something similar happened with Forever Growing Garden, but, in this instance, we're happy to report that it's on this issue of The Disc!

The Fax of Life

please note that Kinesoft's telephone number is (708) 806-9562. The number listed in last issue's review of It's A Wonderful Life is the company's fax number.

We were not so lucky with Sam & Max Hit the Road, however, which is list-do not or cover bag, Sorr), but it's not on The Disc! — despite the best of intentions, LucasArts was mable to deliver the demo. Rest assured, though, that even with these cocasional last-minute changes we do guarantee you'll always end up with more than we promised on The Disc! In fact, we receive a number of last-minute surprise additions that arrive after the plastic cover ships.

When Will I See You Again?

hat is the shipping schedule for your magazine and disc?

Troy Varner Erie, Pennsylvania

Our next issue, August/September, will be on newstands and in mailboxes in mid-July. This will be our last bi-monthly issue. We'll be going monthly, starting in October. That issue should arrive in the middle of September.

What A Difference A "D" Makes

In your "Double Speed CD-ROM Drives" feature last issue, you noted at the bottom of p. 39 that all drives listed except Mitsum's CRMC-FX001D fully meet all MPC Level 2 specs. This is incorrect. This drive does meet all MPC Level 2 specs. Mitsumi also produces a single-speed drive, the CRMC-FX001, which meets MPC Level 1 specs. May this was the source of confusion.

> John Antonchik Director of Marketing Mistumi Electronics Corp.

Mr. Antonchik is correct. Our apologies for the error.

Education: Another View

s. Matthews let-ter from your April/May issue is typical of many people who just don't get the reason for failure in school. Students are failing because we as a society do not value our young people unless they are our own. Look at the resources that Ms. Matthews is willing to commit to her children's education. A warm room, food, a computer, and a very interested and motivated adult for only three children - how can they help but succeed?

Society would benefit from her lessons, but there is proof already of what needs to be done. Students need to come to school fed, have adequate clothing, and an uncrowded classroom. Of course, two or three computers in each classroom would be nice.

Wake up, people – education is only failing students because it is set up to do so. What are you willing to invest?

> Carl Bogardus, Technology Instructor Chaparral Middle School Chaparral, NM

Send Optometrist Bills Here

Most of the past month's mail has been in response to The Died, but a close second is the number of letters about the agaphics used in our reviews rating system (see the April/May issue). Actually, we spotted the problem the first day we saw the issue, and proceeded to correct it immediately. The colored discs appeared classifing distinguishable from one another on our artists 'Macintosh screens, and even the page profit hooked OK. But when the ink hits paper at the printer...well, suffice it to sy than we should have used a better treatment from the get-go. No one should have a grade and the printer and the printe



Some of the letters were so good, we have to share at least a few excerpts:

- I'm not that advanced in age, and I had a hell of a time figuring out why all the titles were rated the same - 5 CDs - until I literally pressed my nose against the page to notice the teensy-weensy little difference in the gray shades.
- I don't want to have to use a Pantone color matching sheet to read your ratings.
- Can you change the color of the discs in your rating system? I can refer you to the ratings symbols now used by Consumer Reports....
- For about the first ten minutes of reading, I thought every program was given a top rating....
- Perhaps it's my age or perhaps it's my vision....



Product Information Number 179



"Welcome to SimCity CD-ROM!"



The SimAction News keeps you posted on daily disasters and other headline news.

holds up when you're faced with the real thing... Real disasters. Real Chaos. Real people.

Introducing SimCity Enhanced CD-ROM from



Full motion video brings your city officials to life -Police Chief, Fire Chief and more!

Interplay Productions. It's SimCity with a whole new attitude as the award-winning classic goes Hollywood with professional actors, location shooting, full motion video and real-

Sure, Sure, It's all fun

and games when you

to a bunch of pixel-

high people and text

that Mayoral muster

can play lord-god-king

boxes. Now lets see how

life footage of those natural disasters you find so irresistible (come on, admit it...we won't tell). Unleash a killer quake, Meltdown a few nuclear power plants. Heck, wreak city- disaster and crime destroy your creation.



Mess up and you'll watch as natural

wide havoc while you're at it... just don't expect your SimCitizens to sit around and take it because in this SimCity, your citizens are anything but quiet. You'll make headlines on the nightly news, come face-to-

face with vein-popping city officials and truly experience the lives you rule with each click of your mouse.

SimCity Enhanced CD-ROM. The all new original city simulator.

Available for IBM PC & compatibles CD-ROM and Hard Drive required.

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News



Instant Karma

John Lennon, in all his guises musician, artist, writer, actor will be the subject of a forthcoming CD-ROM from Compton's NewMedia. Imogine will cover the late artist's entire life, not just the manic years he spent as



He is The Walrus: Lennon on CD-ROM

a Beatle. Along with nearly an hour of video, Imogine will col-lect various Lennon drawings and writings. Lennon's estate worked with Compton's to ensure the product's quality. Imagine will be released for both Windows and Mac sometime this fall. The standard CD-ROM will carry a suggested retail price of \$69.95, while a special limited edition collector's set will sell for slightly higher.

Green Eggs and ROM

Dr. Seuss left a huge, creative imprint on children's literature. Now, thanks to multimedia, some of his nearly 50 works will take on new life. Living Books recently acquired the multimedia rights to the Good Doctor's vast body of work, which contains characters as diverse and popular as The Cat in the Hat and The Grinch. Living Books, now a joint venture between Broderbund and Random House (Seuss's publisher for over 50 years), will announce the first Dr. Seuss Living Book later this year. Dr. Seuss (a.k.a. Ted Geisel) passed away in 1991.

Opinions: The State of CD-ROM

It's official - no matter who you ask. CD-ROM is a fullscale force, gaining power with every passing minute - like a the year? Or is it 1994?

We talked to five people who are immersed in the CD-ROM market. We began with chains. Meanwhile, Compton NewMedia's Tom McGrew doubted the coming of the much-vaunted Information

QUESTION: 1993 IS GENERALLY CONSIDERED THE YEAR MULTIMEDIA CAME INTO ITS OWN, WHAT'S SIGNIFICANT ABOUT 1994?

hurricane. And just as tropical storms are tracked by experts, so are computer trends.

Industry insiders generally agree that 1993 was a key year for CD-ROM. But was it

"Applications will advance significantly beyond the "book" metaphor and into applications that incorporate more creative uses of the media and more interesting ways for people to interact with the media."



- Ion Davidson President and Founder Dovidson & Associates

a simple question and let them run with it.

Some of their opinions took us by surprise. MPR's Doug Mealy implied that the CD-ROM business is still in

its nascence. Paul Attard, of Multicom, agreed (likening it to "a blip on a revenue radar screen") and noted the need for more mass-marketing through big retail

Superhighway, at least in the short term - quite different from Jan Davidson's assessment that we'll soon see more applications geared toward the Big Electronic Boad.

But on certain questions, everyone agreed. For instance, our interviewees concurred



"We believe this whole bookstore/mass-merchant concept is going to become increasingly important to this business as we go into '94." - Paul Attard Chief Operating Officer Multicom Publishing

To The Maxis

The first CD-ROMs from Maxis are due this fall. SimBain Forest for DOS. Windows, and Mac offers the player a chance to manage a rain forest. Maxis describes this simulation as a "total immersion" project, in which the lushness of the rain forest is conveyed through video and sound. Also in the works is SimTown in which you run a town, manage its resources, and pay close attention to its ecology. A Mac version is



Maxis' SimTown, where you're the boss.

expected to ship in October, followed by a Windows and DOS version. Maxis, incidentally, has taken over distribution of its own educational products. Until recently, Maxis had depended on others (Broderbund, Davidson) to promote its products. Now, one year after bringing its entertainment distribution in-house, Maxis is

preparing to do the same with its educational products.

"I think 1994 is when CD-ROM may come into its own. 1993 awakened the masses, while 1994 will provide the consumer with more materials to develop discriminating tastes. In 1995, we'll see the final acceptance of CD-ROM products in the marketplace. The real explosion will occur when business-to-business software applications become fully interactive."

- Doug Mealy, President and Founder

Multimedia Public Relations



"This market will continue to explode in size. especially as some of the big players realize there really isn't going to be an Information Highway in the next two or three years." - Tom McGrew

Vice President of Market Development and **Product Planning** Compton's New Media



vou're

lote more _

going to see

You're going to see products of a much higher quality by the end of '94, and there'll be a few that really up the ante on what multimedia's about. We're also going to start feeling the shake-out, based on companies that have placed

bets on wrong platforms." - Scott Page Executive Vice President. Head of Production and that the 7th Level

general quality level is certainly going to climb. That means better products and more selection for the CD-ROM buyer, but much stiffer competition and a more crowded market for software publishers.

And there are many other challenges on the horizon, 7th

Level's Scott Page feels that Apple has a lot riding on the Power-PC maybe too much while Tom Mc-Grew predicts that the Windows interface is living on borrowed

"It's kind of an obsolete interface where we're headed."

Opinions vary widely and, in just a few months time, we'll begin to see how these predictions hold up. Our thanks to the folks interviewed, for sharing their time. words, and perspective.

Convention Calendar

In the future, everyone will either be famous for 15 minutes or hold their own huge multimedia expo. Here's a quick look at some upcoming tradeshows. (The referenced phone number should put you in touch with the event's promoter, but not the convention site.)

· Digital World

June 6-8 Los Angeles Convention Center Los Angeles (800) 488-2883

Multimedia 94 June 7-9

Earl's Court 2 London (011) 44 81 742 2828

Summer Consumer **Electronics Show**

June 23-25 McCormick Place Chicago, IL (202) 457-8700

ED-MEDIA (World Conference on

Educational Multimedia and

Hypermedia) June 25-29 Vancouver Hyatt British Columbia, Canada (804) 973-3987

PC Expo June 28-30

Jacob K. Javits Convention Center New York City (800) 829-3976

· Online '94 CD-ROM **Conference & Exposition**

October 24-26 Hyatt Regency San Francisco (800) 248-8466

In Brief... ARDWARE

Making \$100 Disappear

Say you're interested in getting into ReelMagic's MPEG compression, but you're really happy with your present sound setup? No



ReelMagic Lite has all the hocus without the extra pocus.

problem. Sigma Design's ReelMagic Lite omits the sound board (the sound capabilities have been limited to just MPEG audio playback) and gives you the same full-screen, full-motion video for \$349 (SRP). In addition to \$100 savings, you also get an MPEG version of a popular entertainment title and a demo CD profiling ReelMagic compatible titles. For details, contact Sigma Designs at (800) 845-8086.

Clutter Cutter

"Where's that file I was working with?" "What'd I do with that hard copy?" If your day is filled with questions like these, perhaps it's time to solicit the help of Ring King's InView



Ring King's Inview brings your desk's surface back in view. Workstation Organizer. InView combines a document holder, storage centers, and an acrylic sleeve into one contraption that straddles your computer. There are three available sizes, all of which sell for \$49.95. Give Ring King a call at (800) 272-2366.

Home Shopping...the CD-ROM Way

The Home Shopping Network is inching toward multimedia, as suggested by its participation on Magellan Systems' Mac CD-ROM catalog, titled The Merchant. HSN appears to be playing it cautiously. only including products from the Stuart McGuire Men's Footwear and Accessory catalog (from their sub-

sidiary, HSN Mail Order). The Merchant contains products from some 25 different catalogs. HSN has other marketing plans in the works, too, and will make the move to the larger Windows user-base once this test is completed. To find out more. call the Home Shopping Network at (813) 572-8585

Ever wonder what it's like to have your life flash before your ears?

You'll find out when you play SSN-21 ScaWolf, of the sequel to 688 Attack Subs.

And the most realistic PC



submarine simulation this side of Annapolis.

As you dispect the world's newest, most heavily arrived nuclear attack subt too less than 100 different sound effects assault your senser was our revolutionary 16-bit full district steros sound.



NOBODY KNOWS WHAT HEL GIVE YOU A PRETTY GOO

You'll hear the cerie high-pitched whine of torpedoes as they home



in on their targets. The menacing drone of a destroyer passing overhead.







they'll live to enjoy an her liberty call.



kerp your eyes open, too. SSN.21 ScaWolf " features color motion video, 3.D underwater mapping, and vivid digitized images of more than 50 Yeal, world ships and aircraft.

Now, take a final breath of fresh air and dive into a world where good hearing is your greatest asset.

L LOOKS LIKE. BUT WE'LL D IDEA HOW IT SOUNDS.





In Rrief... OFTWARE

Fantastic Voyage Version 2.0

Remember Fontostic Voyage, the '60s sci-fi flick in which a medical team was shrunk and injected into a human? That's the idea behind Microcosm, now available for PCs on CD-ROM from Psygnosis. The story shrinks you and puts you in charge of rescuing a top corporate honcho who's been implanted with an assassination probe. It doesn't



help that the man you're frantically trying to save is mass producing antibodies that are as deadly to you as enemy agents. Microcosm kicks off with a bang. a nifty seven-minute opening scene that's ultra-cinematic. Psygnosis can be contacted at (617) 497-7794.

The Thrill of Victory, Etc.

Sports Illustrated, longtime leader among sports mags, has teamed up with StarPress Multimedia for the Sports Illustrated 1994 Multimedio Sports Almonoc (for MPC and Mac), \$7s \$59.95 disc brings you 40 minutes of video recapping the year's biggest athletic events (Super owl, NBA finals, and World Series), plus nearly 500 color pix. 1200 pages of stats and records and an entire year's worth of 5/ contents. For more info, call StarPress at (415) 274-8383



StarPress presents you with a veor's worth of sports

Good Vibrations

Question: What hot new technology could become a standard, and is a much-desired license among software developers? If you answered "ReelMagic," it's understandable...but incorrect.

The other emerging standard is for audio - SRS (Sound Retrieval System) doesn't alter sound but dramatically changes the way we perceive it. SRS Labs' AK-100 unit (SRP: \$299), promises true 3-D audio imaging for considerably less than once thought possible.

SRS' applications are limited only by the number of exportable audio sources: CD-ROMs (in fact, any computer program), cartridge-based video games, and music from any component. Some sounds respond more dynamically to SRS treatment than others. but there's no denying this mysterious box performs strange magic. We've heard it. and we're believers.

Understanding the Voodoo

Let's start with the human ear. Modern recording. despite its sophistication and technology, is unable to duplicate a live performance as an audience would hear it. That's because microphones aren't shaped like the outer ear, and they regularly miss indirect audio cues related to air pressure and instrument placement. SRS restores these and other cues to the original sound.

Ironically, the SRS process de-emphasizes the role of loudspeakers. With SRS, vou don't feel like vou're being approached from two speaker sites. There's more of



center chair...



spot," so you hear the same sound matter where you are in the room

Maneuver\$

· America Online is flatly denying rumors it's being targeted for acquisition. The online service is a robust 700,000 subscribers strong (making it an attractive prospect), but has issued a statement reaffirming its intentions of remaining independent.

 Davidson & Associates is nursuing the \$1-hillion educationalcurriculum market with a vengeance. Their joint venture with Paramount Publishing (the entertainment giant's publishing arm is the nation's largest book publisher) is expected to give both companies a hoost in pursuit of that market. Davidson is now working on an investment guide, Beating the Street, and an interactive children's book Chicka Chicka Boom Boom. Paramount means business: they're investing a hefty \$50 million in development, Davidson has also acquired developers Chaos

Studios and Learningways, Inc.

. In other news of paramount importance, Paramount Home Video will market and distribute CD-ROMs by Xiphias. The first Xiphias title under this arrangement will be Mighty Morphin Power Rangers, translated from the popular kids show.

· Last issue, we reported that Interplay had received a sizeable investment from MCA. Here's what's developed since: 1) Interplay has licensed GURPS (i.e., the Generic Universal Role-Playing System) as developed by Steve Jackson Games. Interplay will use GURPS in developing a game engine adaptable to any role-playing scenario; 2) Interplay will invest capital and technology in Northstar Studios, a new development company founded by Ronald Spitzer (formerly associated with New

World Computing, publishers of the popular Might and Magic series); and 3) Interplay has inked an exclusive distribution deal with Informative Graphics, Interplay will market products like the enhanced CD-ROM versions of Auto Insight and PC Insight.

 Wharfside Productions (whose principals originated the Carmen Sandiego series) has been enlisted to create multimedia titles for the Time Warner Interactive Group. Time Warner is ambitious with plans for nearly 30 titles (spanning the edutainment, infotainment and entertainment categories) by this October.

· Virgin Interactive Entertainment's first public offering in the U.S. will put some 1.8 million shares of stock on the market. Virgin plans to rechannel the proceeds into working capital.



The AK-100's space knob widens the sound field, while the center knob boosts the presence of vocols. The AK-100's buttons let you further shope the sound output, os well os control the visual display.

a sense that sound has filled the room and wherever you move, the listening experience remains the same.

It's impressive that SRS accomplishes these effects without depending on a "sweet spot," or asking you to add speakers to your sound system or computer.

A Tale of Two Companies

The SRS story begins with Howard Hughes, whose company, Hughes Aircraft, pioneered SRS imaging (as invented by Senior Scientist Arnold Klayman). Last summer, three of the Audio Division's managers purchased the SRS technology from Hughes, which was phasing out the Audio Division to concentrate on aviation interests. Now SRS Labs alone charts the course for SRS, part of which involves courting companies interested in licensing the technology for other projects.

Who's on Board

Both Sony and RCA have licensed SRS for their hometheater applications. Computer hardware manufacturers are busy adapting SRS, too, Alpha Systems Labs is currently presenting its Cyber Audio/SRS sound card, while Media Vision is countering with a trio of 3-D sound cards. Video gamers aren't being ignored, either - Calypso Micro Products designed its Game Gizmo 3-D expressly to accommodate SRS technology.

Wanna Hear More?

Reading about SRS is similar to talking about riding a bicycle or tap dancing. You have to experience it to understand it. (It's that zen thing - sort of.) To get the rest of the story on SRS and the AK-100 unit, contact SRS Labs.

SRS Labs, 4600 Campus Dr., Ste. 106, Newport Beach, CA 92660 (714) 442-1070

Effects and Causes

How does SRS-processed audio seem different? Here are some common observations...

1) The Volume's Been Increased. (Actually, it hasn't changed - SRS unmasks frequencies so vou're hearing more of the original source sound.)

2) Instruments Have Been Added. (Again, restoring frequencies sometimes reveals musical instruments buried in the mix)

3) The Sound is "Wider." (The sound field, whose width is roughly the space between and including your speakers, seems more expansive than before.)

4) The Position of Instruments or Sound Effects Has Changed (In restoring original sound cues, SRS sometimes changes their source locations.)

In Brief... ARDWARE

Omniphonic

Audio-Technica's new Omniphone line of headphones feature a couple of noteworthy design features. The headband is connected to the front of the ear pieces to keep any headband pressure on your cheekbones, not your ears. The earpads, hile, incorporate a convex shape which causes them to "spring" outward and conform better to the shape of your ear. This also creates an acoustic seal which promotes stronger bass response. The three Omniphone



ore built for moximum comfort

models range in price from \$19.95 to \$29.95. To hear more, call Audio-Technica at (216) 686-2600.

Catch the Wave

For under \$100. Prometheus can put you into a 16-bit sound card that features wavetable synthesis. Its ARIA 16 card also incorpo-



Prometheus' \$99 sound card... with wavetable synthesis rates digital signal processing (DSP), which means that later innovations can be accommodated without buying more hardware. The ARIA 16 uses a Sound Blaster emulation board to support most existing games. A spe-cial edition of the sound card, the ARIA 16se, offers speech recognition and a SCSI-2 interface. For the complete scoop, cal Prometheus at (503) 692-9600.

CDs by DK

When U.K.-based Dorling Kindersley Publishing started moving some of its children's reference books over to CD-ROM, it didn't want to settle for static text screens and the occasional illustration, Instead, DK has tried to soup up its CD-ROM adaptations with as much multimedia pizazz as possible (Expect visually rich graphics where screen items are "hot.") The first batch of five should be available this fall (all for

arrive later) and includes The Woy



Windows, with Mac versions to DK's force-full Encyclopedia

pedio of Science, The Ultimote Humon Body. My First Incredible. Amozina Dictionory, and Stephen Biesty's Incredible Cross-Sections Stowowov! DK Multimedia plans to expand its efforts this summer. Suggested retail prices for these titles are \$49.95, except The Woy Things Work which will list for \$09.05

> Dorling Kindersley Multimedia. 95 Madison Ave., New York, NY 10016 (212) 213-4800

In Brief... OFTWARE

When, Oh, When?

Information continues to leak out about *Under A Killing Moon*, Access Software's long-awaited CD-ROM, touted as an interactive



Killing Moon stors Morgot Kid-

either the Gone with the Wind or Heoven's Gote of multimedia.)

The Great Job Hunt

growing. It's no longer two CD-ROMs — it's now up to three.

(Sounds like it could end up being

Attention, recent grads and other job-seekers! Nothing speeds up a job search like instantly accessing information via CD-ROM. With that in mind. InfoBusiness' Job-Power Source (\$59.95, MPC) culls the full text of 11 career-oriented books and two hours of videotraining clips showing you the dos and don'ts of interviewing. etc. You also get a database that fills you in on more than 12,000 occupations. A bulked-up version called Job-Power Source Professional sells for \$149.95 and is targeted to guidance counselors, career planners, and placement offices. For more info, contact InfoBusiness at (801) 221-1100.

NEC's Quad Drive: Another Step Forward

Is NEC blazing new territory on the CD-ROM hardware trail? Perhaps. As an industry pioneer, NEC introduced the first double-speed drive in January, 1992. Now, as street prices on its triple-speed line of drives begin to fall, the company has upped the ante again by shipping the NEC MultiSpin 14X Pro.

Using the 4X Pro "quad speed," which currently retails for just under a thousand dollars, offers a quick indication of just how far CD-ROM technology has come, and an indication of where it needs to go. While the drive's purported 180ms average access time is a marked improvement, it shows that CD-ROM technology has a way to go before it competes with the speed of a hard drive. The 4X Pro's greatest asset is its ability to move data at a sustained rate of 600KB per second. Its pixelpushing expertise makes it worthy of serious consideration by multimedia professionals and die-hard game fans alike.

In purely subjective comparisons, using the 4X Pro against a common internal double-speed drive, the 4X Pro is the clear winner on every count. Using identical queries with Grolier's Multimedia Encyclopedia, the 4X Pro found matches more quickly and brought long "hit" lists to screen quickly as well. Importantly, on a perceptual level, it only barely edged out its presumably weak competitor in these "random access" tasks.

In the area of animation and video playback, the 4X Pro demonstrates real superiority. MPC titles such as Myst and technologically demanding DOS-based titles like Strike Commander appeared more fluid and lifelike when running from the 4X Pro.

While video hardware acceleration lessened differences somewhat on MPC titles, the unit really excelled with the DOS titles tested

The 4X Pro is a solidly built external drive with full built external drive with full CD audio controls on the front of the unit. A rotating "double door" layout minimizes dust and remains easy to use. An LCD indicator reveals access and whether the unit is in standard "4X" or "1X" mode for redbook audio playback.

A source at NEC hinted that the company's next big technology move may be to leapfrog to an 8X or 10X unit, incorporating "blue light" technology, which will effectively quadruple the storage capacity of CDs. If the pace of change continues to accelerace, a 1500 kbps, 2.6-gigabyte CD-ROM drive may not be that far off.

— Dave Gerding

Weighing IBM's Options

IBM wants to become more involved in the \$10 billion peripherals market. Hence... Options by IBM, an entire line of some 300 accessories, storage products, and adapters. Big Blue's goal is to eatch the eye and dollar of all PC users, not just dedicated IBM customers. To that end, the Options line will create prod-



IBM's loaded with Options

ucts compatible with industry standard architecture (ISA). The Options launch marks the first chance regular consumers have had to purchase IBM's storage systems, along with other, more familiar peripherals like keyboards and memory cards. IBM has established a HelpCenter, which offers support assistance for warrantied products 24 hours a day, 7 days a week.

> IBM, 1133 Westchester Ave., White Plains, NY 10604 (914) 766-1900

OK, Class...Open Your Jewel Cases

Higher education is going high-tech at Arizona State University, which is offleing the world's first college course on CD-ROM. The course, which carries three semester hours of university redt, is called "instructional Media Design" and teaches how to best use the various media in order to create top-notch instructional and promotional presentations. All necessary reading materials for the course are included on the disc, and students send in their classroom assignments over the internet. ASU designed the course with Intel, which contributed \$300,000 to the project's development, and will use the course internally to improve communication skills among their employees. If you want to learn more, contact Dr. Cary Bitter at ASU — GO(2) 965-9960.

Worldwide Total CD-ROM Titles in Print 1988 1989 e sectors and all markets, platforms, subjects, content types SOURCE: OPIA Sixth Edition 1993 © COPYRIGHT 1994 InfoTech Worldwide Total CD-ROM Installed Reader Base 1988 1989 1990 1991 1992 1993 1994 1995 15 10 20 VALUES (000,000): Commercial and inhouse sectors and all markets, platforms, subjects, content types SOURCE: OPIA Sixth Edition 1993 © COPYRIGHT 1994 InfoTech

Pair O' Graphs

If you want to get an idea of the CD-ROM market's growth, and where it's heading, take a look at these graphs (furnished by InfoTech). The first graph shows how many different titles have been produced since 1988 (keep in mind that these include all types of applications, not just those produced for the consumer market). The second graph illustrates the rise in the number of CD-ROM users since 1988. Both graphs appear to proiect continued and impressive growth on into 1995. (For further information InfoTech's market research, contact them at (802) 457-1037.)



Notebook Notes

Aquiline's top-of-the-line Hurricane notheok offers plenty of nifty extras – like a Tooliba CD-ROM drive, a 540 MB removaable hard disk, active color, and three hours worth of full battery power. Prices for the fully-loaded unit are a lad steep – 59180, to be exact. Aquiline's Hurricane series starts with a 54480 monochromatic DX33 model containing a 120 MB hard disk. For all the into, call Aquiline at [159] 272-0421.



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TECHNOVISION TIM Victor



Software Video - Getting Better All The Time



A little over a year ago, in the debut issue of CD-ROM Today, I wrote my first column about software video technology.

Time passes quickly in the computer

world, and in those innocent days of yore, I was impressed to see anything that looked like moving video coming off of a CD-ROM and playing on my ordinary PC. The pictures were small and grainy, and playback was choppy, but that didn't

matter. It's like the old singing dog — at first, everyone's amazed that a dog can sing at all, but as the novelty wears off, people start noticing that it can't carry a tune.

To improve playback quality, Microsoft introduced Video for Windows 1.1 last December. It includes two new high-performance compression algorithms, Supermac's Cinepak and Intel's Indeo 3.1, with higher compression ratios that let VFW play 320 x 240 pixel images from CD-ROM at a rate of

15 frames per second, and smaller windows at a full 30. These software codecs were available as add-ons earlier in the year, but with the new release they've officially become part of the VFW package. Best of all, most users won't have to buy anything. The new software is available free from online services, and publishers are including it on newly released discs.

The new version of VFW makes life easier for multimedia producers. With its support for multiple data streams, developers can insert information like text and still pictures within a movie file, and the new audio-compression manager improves soundtrack quality without increasing file sizes. Microsoft also enhanced the QuickTime-to-Video for Windows converter program that comes with the VFW developers' kit, and now includes software for playing VFW clips on Macs. Although Intel is best known as the leading manufacturer of CPU chips, it's been working hard to build brand-name recognition for its Indeo compression software, which is showing up on quite a few CD-ROM titles lately. Besides its excellent video quality, Indeo wins the prize for working with the widest array of software video systems: Video for Windows, OS/2's Multimedia Presentation Manager, and Novell's Netware Video. Clips must still be converted from one video file format to another, but at least there's no need to decode and recompress the data within the file, a process that degrades image quality.

Strange as it may sound, the biggest boost to software video might come from some innovative new hardware. Multimedia video cards like Diamond's VideoStar, ATT's VideoWonder, and Orchid's Videola leave the complicated business of decodine a video data stream to the PC's CPU. but offer

hardware for simple, highly repetitive operations like calculating the final color of each pixel and stretching images to fit larger windows. This stretching, or rescaling, trick is especially promising. The low data-transfer rate of

Thanks to new compression algorithms, more powerful CPUs, and new video cards, the quality of software video has improved greatly in recent months – but the best is yet to come.

> CD-ROM limits the basic resolution of a software video clip, but rescaling each frame to cover a larger area of the screen makes a huge difference in the apparent quality of the video.

The past year brought quite a bit of improvement in software video, thanks in part to more sophisticated algorithms and more powerful CPUs that process them. Although there's still a big gap between software video and what we see on television, video clips are now important to CD-ROM titles, and you can bet that progress will accelerate rapidly over the next year.

Tim Victor is a technology enthusiast who has worked as a writer and programmer, most recently for Hanna-Barbera Productions. He currently resides – with his guitar, mandolin, and assorted computer components – in Greensboro, NC. Email: time@well.sf.ca. us.

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children how things are made and how they work. Host Howie Dunn helps children learn, among other things, how ice cream is mass produced, how TV news is put together & how roller coasters are built!





The Lauranower Man-Virtual Reality Personal Multimedia Collection

Enhance your visual library with this virtual-reality personal multimedia source of desktop video clips and wallpaper images from the cult classic The Lawnmower Man.

Ages 12 and up



Mad Dog McCree I

Mad Dog McCree 1
Entertain youself with this interactive shooting game based on the Entertain. immensely popular arcade version. The game features live motion picture action complete with actors and authentic western settings. Take on Mad Dog McCree himself in this Old West thriller! Ages 16 and up





Ages 3 and up

Mutanoid Math and Word Challenge

Enrich

Mutanoid Math and word unawage

Enrichyour childs muth and selling skills beyond the basics while helping
them save the earth from alien mutanoids! Presented with colorful animations, arcade action, speech and zany sound effects.

Ages 7 and up





Enjoy,



Call 1-800-937-5557 or visit your local retailer

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WINVIEW Charles Brannon



Multimedia Authoring — with Windows!



Last issue, we discovered some of the free multimedia tools in Windows 3.1. Now we'll put them together to build a multi-

media interface using Object Linking and Embedding (OLE).

First, a simple demonstration. Run Windows Write. Now choose Insert Object from the Edit menu (from here on, we'll refer to menu commands using the format Edit/Insert Object). A dialog box pops up with the types of objects you can use (an object can be a document, clipart, sound clip, MIDI file, video movie, or any encapsulated data), Choose Sound to start Sound Recorder, and record something with your microphone. Now choose File/Update, then File/Exit (if you forget to Update, a warning pops up to let you do so).

If you've never used OLE before, you may be surprised to see a microphone icon inside the Write document. Double click the icon, and your voice note plays back. A handy way to make and send "voice

mail" within your documents, no?

Let's try some music. Choose Edit/Insert Object and now select Media Clip, which pops up Media Player. You can embed anything you play with Media Player, including MIDI music, prerecorded, WAV sounds, CD audio. even movies! (Last issue l promised you an easy way to add the Video for Win- Windows' Write: word processor or dows runtime package to multimedia jukebox?



your Media Player - now you can install it from The Disc!).

Choose Device/MIDI Sequencer, and select CANYON.MID from your Windows directory. Use the File/Update, File/Exit sequence, and you're back in Write. Run the icon with a double-click, and enjoy the music. Note the mini-control bar that lets you pause or stop, rewind, or fast forward. While it's playing, run the microphone icon, and you'll see you can play

sounds simultaneously with MIDI music.

Try embedding your favorite movie clip, or track from an audio disc for some real music. If you continue

your work, center Check out the Cardfile demo on The Disc

and format carefully, you could end up with a bonafide "Multimedia Kiosk," similar to what you see in the graphic (left).

Using Write as a multimedia control center has its limits (after all, it's a word processor), but there is another freebie that's better suited: Cardfile. You may be using it as a simple address book (it even auto-dials) or to track your baseball card collection. But it does more than store text on index cards. Run Cardfile and see for yourself.

On this month's disc, I've put together a complete demo of how you can use Cardfile as a multimedia "iukebox," with

graphics, sound, music, and tips for Cardfile and OLE Open it from the

WINVIEW subdirectory or copy it to your hard drive if you wish to customize it. We'll explore OLE and other multimedia tools in future columns, but for now, create your own jukebox and become a multimedia author.

Charles Brannon, a former program editor for Compute Magazine and project manager for Epyx, now supervises a Novell and Windows for Workgroups network, and works as a free-lance writer and consultant. Email (CompuServe): 70720, 462

MACINATIONS STANGE ATTOMATIONS

Lifestyles of the Artificially Intelligent

I've been waiting for proof that

CD-ROM books make sense at all.

Then a truly clever disc like The

Society of Mind comes along



It's not every day you get to tour the living room of one of the giants of computer science (nor would want to, for that matter),

but a new Macintosh CD-ROM from

Voyager offers that rare experience. In First Person: Marvin Minsky's The Society of Mind, we're invited into the home of the legendary Minsky, the "father" of artificial-intelligence (AI) research and a founder of MIT's Artificial Intelligence Laboratory.

The Society of Mind is part of Voyager's series of "First Person" Expanded Books, adaptations of paper-based books by well-known authors (one on evolutionist Stephen Iay Gould

should be out shortly). It's great to see a CD-ROM publisher attempt something more ambitious than bland reference works, but I've always found the concept of electronic books a bit bothersome.

Basically, I've been waiting for proof that CD-ROM books make sense at all. Aside from the fact that I can't take a CD-ROM player to many of the places where I read,

I've found that reading a book on screen is an experience in slow-motion torture. Then a truly clever disc like The Society of Mind comes along and shakes my certainty that paper-based books have a long and rosy future.

Marvin Minsky may not be a household name in your neck of the woods, but he's a god in AI circles. In the 1960s, Minsky spearheaded research into making computers that think like people and robots that act like them.

Though building a thinking computer has turned out to be far more difficult than researchers in the optimistic 1960s

thought it would be, Minsky hasn't wavered from his belief that the human brain is in many ways like a computer. The Society of Mind offers his AI-flavored theory of how the mind works. Minsky's idea is that minds are made up of small mindless agents that behave with what we call intelligence only when they act in concert.

Whether or not you agree with this, you'll be stimulated and amused by this CD's unusual approach, which lifts the bar for other book-to-disc conversions. The entire text of the original 1985 book is there, of course, looking pretty much as it does on paper, but there's lots more. At your click, the avuncular Minsky peers, Kilrov-like, over the bottom border of the screen, then floats up to elaborate his ideas with some uniquely expressive body language.

The CD contains a tour hosted by Minsky himself. Using QuickTime's rarely exploited ability to present scrolling views of 3-D spaces, you can do a 360 from the center of the room and check out, via embedded smaller movies, some of the curios he has accumulated over the years. Among the more interesting items are a brain model in a box; an electron microscope of his

> own invention: a fish tank with magnetically activated artificial fish; and a photo of the professor with Gene Roddenberry, the cast of "Star Trek: The Next Generation," and Dan Quayle. ("I'm not sure Quayle knew that Star Trek isn't real," Minsky says thoughtfully).

Sure, everyone realizes that CD-ROMs can include stuff that will never appear in

books. But it wasn't until I saw this congenial, profound thinker prowling his own habitat that the real potential for books on disc hit me over the head.

[Editor's note: See the reference section for more on Minsky.]

Steven Anzovin is the author of three Mac multimedia books. An expanded edition of his book about computing and the environment, The Green PC (Windcrest/McGraw Hill), is due out this summer Fmail: aurovin@aol com

CD-ROM Today 37

SHAREWARE David A Wade



Giving You the Edge



Anyone who has explored the bountiful world of shareware - whether by purchasing floppies, CD-ROMs, or downloading

from a BBS - will have come across the

initials ASP. They stand for the Association of Shareware Professionals, and this group of programmer-entrepreneurs has started to promote its members' products on a CD-ROM, to be issued quarterly, and aptly named The ASP Advantage.

So what exactly is the advantage to you, the user, of ASPsanctioned software? First, any authors wishing to join the ASP must agree to publish a full working version of their program - no teaseware, crippleware, or demos are allowed to be distributed under the organization's imprimatur. Second, the original producers must ensure that all documentation needed to install and run their product is included with the program files.

Third, and this is most important, the ASP ensures a high level of quality control and customer satisfaction. Author-publishers must guarantee to provide a support service for all of their legitimately registered users. And, if a seemingly insoluble problem arises, it is promptly handed over to an ombudsperson for resolution - you don't get that kind of service even with high-priced retail software packages!

The ASP Advantage CD-ROM, already in its second edition (and, by the time you read this, the third disc should be available) offers 1000 programs covering the whole range of business, communications, education, engineering, finance, games, graphics, hobbies and pastimes, mathematics, programming, religion, utilities, writing tools, and Windows products. They can be accessed easily from a DOS or Windows' front end - that choice is up to you. And the files are left uncompressed for quick and easy copying to your hard drive. This CD-ROM is available in some leading retail locations or directly from ASP (Phone: 616-788-5131, \$24.95 plus \$2 shipping).

Where's the Mac Shareware?

During my recent travels from New York to North Carolina, I was impressed by the widespread distribution of PC shareware. I even found a spinner full of shareware floppies in a local convenience store: and CD-ROMs abound - from computer retail outlets to some of the smarter book shops. But where, oh where, is all the Mac shareware? There are some terrific programs in circulation but it seems hard for the Mac user, especially newcomers, to find it. If you're a Mac shareware CD-ROM producer, don't hide your light under a bushel let us know about your disc here at CD-ROM Today. If you're a Mac user and have discovered a super CD-ROM source to satisfy your shareware needs, then let us in on your secret. Next issue we'll take a closer look at the shareware situation in the Mac market.

There is also a special version of the disc, with all of the same files in a zipped format, supplied monthly for BBS operators.

ASP membership is worldwide; for example, check out the Take One animation editor from Germany or Kosynka, an attractive and challenging double-deck solitaire game from Russia - you'll find them both on this month's issue of The Disc! In fact, there's an extensive showcase of shareware programs drawn from ASP Advantage to give you a taste of the impressive selection available to you on this highly recommended CD-ROM. There are a number of programs

grouped under the heading of Multimedia

Tools on The Disc! - these include animators, chart makers, image managers, morphing tools, and presentation packages plus a wider sampling of ASP programs, drawn from several of the categories on their disc, including the Windows areas, games, and organizational helpers for home and business. If you like a program and want to add it to your permanent collection, then register it with the author. It's well worth doing that because very often you'll receive printed documentation, additional utilities, deep discounts on upgrades, and, of course, you'll qualify for guaranteed technical support.

David A.Wade, former free-lance journalist, film reviewer, and adventure novelist, was bitten by the shareware bug in the early 1980s. Email: cdromtodav@AOL.COM.





Can you
really cure what
ails your PC
in only 10 easy
steps? Short of
plying your local
computer guru
with beer and
pizza, you won't
find an easier
way to solve
common PC
problems.

Charles Brannon



Basic Training: Boot Camp

It's a fact of PC life that you'll have to sometimes change the contents of your boot files (AUTOEXEC.BAT and CONFIG.SYS). Although at some point you have to get your hands dirty by altering these files, don't let them intimidate you. Always have a boot disk for your computer (make one with FORMAT A: (S), so that you can still boot your computer, even if you foul up the boot files.

Assuming you have DOS 5 or 6.x, you can type EDIT CONFIG.SYS or EDIT AUTOEXEC.BAT to open one of the boot files for inspection or editing. If you want to save any changes you make, hold down ALT and press F to "pull down" the File menu, and press S to save your changes, and use ALT-F, X to exit EDIT.

Windows reads its own "boot files" — SYSTEM.INI and WIN.INI — when it starts up. Together with AUTOEX-EC.BAT and CONFIG.SYS, these four files comprise your essential system setting files. Before changing any of them, or before installing new software, copy them to a floppy disk — that's your safety net.

It also pays to get to know your computer's CMOS (see-moss) setGet to know your CMOS settings write them down and keep them stored in a safe place.

tings (which you can reveal by pressing Esc or Del just after your computer starts booting). Go into basic settings, and write down all the values you see, especially the one for the hard-disk type and parameters (cylinders, heads, sectors). Write down the drive settings, and put them somewhere safe so you don't lose them. If your CMOS battery fails,



you'll be able to restore the settings: without them, your hard drive won't boot. Avoid tampering with advanced settings - they were optimized for your computer by the manufacturer or computer dealer.

We'll make some suggestions in this article for changes you can make for these files, but for now, pat yourself on the back for mastering one of the basic troubleshooting skills: taking control of your system files.



Cracking The Case

In your wildest dreams, you never thought of disassembling your microwave or clock radio, but taking the case off your PC is commonplace, and will save you hundreds of dollars in service fees by following simple procedures you can easily do yourself, often with just a Phillips screwdriver.

Every PC is designed a little differ-

Watch out for static electricity. A tiny spark can carry 10,000 volts or more and melt the finer-than-hair thin connections within computer chips.

ently, so we won't go into detailed instructions, but your manual (or the manual that comes with the

sound card or CD-ROM drive) probably has some clear and easy steps to follow when popping the top.

Do watch out for static electricity: a tiny spark can carry 10,000 volts or more. and even at very low amperage, they can melt the finer-

As long as you have backups of your boot files, try using DOS 6.2's MemMaker if you're getting OUT OF MEMORY errors. The Express Setup option found in MemMaker works fine for most people.

than-hair thin connections within computer chips. Always touch a large metal part of your computer frequently while working on it.

Case Closed

If your computer won't start after you've installed a card, most likely the card is not fully seated (firmly inserted) into the card connectors, or you accidentally pulled out a ribbon cable while closing the case. A flashlight or a bright desk

Windows memory problems? Beware of resource hogs (large Windows applications, especially those which are graphics-intensive). You may have to exit them if you want to run other programs.

lamp is a good way to see everything clearly. Be sure vou remove any dropped screws, since these can wind up under the moth-

erboard and create novel, but disastrous, connections, also known as short-circuits.



When Memory Doesn't Serve

When we talk about memory, we're talking about the solid-state RAM in your computer, in the form of chips. Confusingly, disk storage is some-

> times referred to as memory, and is measured in the same units (bytes, Ks. MBs, etc.).

There are three flavors of RAM, Conventional RAM is limited to 640K. Any memory beyond 1MB is either extended

memory (XMS), expanded memory (EMS), or both.

Conventional memory is precious, HIMEM, SYS (with DOS 5 or 6.x) moves DOS moved into high memory, just beyond the 640K limit. The DOS 6.2 version of HIMEM can also detect memory errors.

DOS version 6.x includes MemMaker, which is designed to make memory management easy. With MemMaker, DOS can move many of your TSR (Terminate and Stay Resident) programs and device drivers into upper memory, an otherwise unexploited region left over within the first megabyte of RAM.

As long as you have backups of your boot files, you should try MemMaker if you're getting OUT OF MEMORY errors. The Express Setup option in MemMaker works fine for

just about everyone.

MemMaker is finicky, and you need to re-run it anytime you change your boot files or reinstall software, so don't bother with it unless you really need it.

How Can This Re?

I have eight megs of RAM — how can I be out of memory? Even with Windows, maximum conventional memory is a must if you're getting mysterious out-of-memory errors. No matter how much total RAM you have, you still have only 640K of con-

memory.
Some
Windows
memory errors
happen when

Use a permanent swap file and enable 32-bit disk access if your computer supports it. Run Control Panel to set up these options.

the pitiful 128K available system resources (use Program Manager's Help/About menu item to see how much RAM and resources you have left). Windows 4.0 promises to cure these ridiculous limits, but in the meantime, beware of resource hogs (large Windows applications, especially those which are graphics-intensive). You may have to exit them if you want to run other programs.

Removing an icon from Program Manager does not remove files. Use DOS's DELTREE or Windows File Manager.

Windows can use a part of your hard drive as a slow substitute for extra RAM.

You will want to use a permanent swap file, a reserved area on your hard drive of at least 4MB, and enable 32-bit disk access (a way to bypass DOS for direct access to the swap file) if your computer supports it. Run Control Panel and select the 386 Enhanced icon to set up these options.



Hard Choices

You can never have too much storage space, so when shopping, buy the largest hard drive you can afford. Every time you install a program, even if it's just a demo, it can consume megabytes of disk space. You have to be ruthless with the knife, and learn how to delete files and directories, and how to uninstall the traces these programs leave behind in your boot files.

With DOS 5.0 and above, the DEL-Tee command is your best friend.
With one stroke, it bores through all files and directories, but be careful!
DELTREE not only deletes the files in a directory, but all child directories and all their children, too. It's like pruning a branch: all the sub-branches, twigs, and leaves fall into the trash bag, and there's no glueing them back on.

Once you've deleted an application, edit your AUTOEXEC.BAT and CONFIG.SYS files and snip away any commands that load from the obsolete directory, to avoid confusing error messages when you boot.

With Windows it gets more complicated. Before you install a program, save a copy of your system files, including SYSTEM.INI and WIN.INI. By comparing a printout of the original boot and system files with the ones changed by the install program, you can see what other lines were added or changed. Don't simply replace the system files with your backup copy, or you'll also "uninstall" any other programs you've added since you made that backup. (Another way to maintain clean Windows system files is to use a commercial uninstall program.)

Don't forget: Removing an icon from Program Manager does nothing to remove the files from the hard drive. For that, drop back to DOS and use DELTREE, or run File Manager, click on the directory in the tree pane (the left one), and oress the Delete key.



HardWars: When

"Do it yourself" can be fun, and financially rewarding, but there's a war zone of potential incompatibilities waiting for you inside your computer's case. It's pure selfishness; each card stakes out its own turf, with a private address and a fenced-in yard. If you let another card trespass on this territory, you better get ready for a rumble. At best, only one card will win the fight. At worst, your computer will lock up in horror at the carnage. (No permanent damage will occur, just separate the squabblers and put them in separate playpens.)

Frequently, a card needs a unique interrupt number also. Remember when the teacher called the roster in grade school, and more than one kid answered, "Here!"? That kind of confusion is unacceptable to your computer. Unfortunately, there are only about ten unique interrupts available, and most of them are taken. Run the MSD.EXE utility (included with Windows 3.1 or DOS 6.x) to see who's got dibs: press Q for a list of active interrupts.

You may have to physically alter a card to make it behave. Using tweezers or needle-nose pliers, you'll pull out a timy little jumper cap and move it to a different position, or flip a truly miniature on/off switch on the card, to change these settings. But be sure to consult the manual that came with your card before tackling this. If you can't change the settings on the new card, reconfigure an existing one to free up addresses or IRQs for the new one.

Vote with your wallet: buy only new cards that are software-configurable, meaning you can run a setup program to change the value of the card's IRQ or 1/0 address. The near future brings the promise of the auto-configuring Plug and Play technology (see "New Frontiers" on p. 120), but you'll probably have to buy a new computer with all new cards to take full advantage.



Sound and Fury, Signifying Nothing

Before taking your sound card back to the dealer, be sure to consult the manual that came with your sound card. If all fails, check out the following list of common problems:

If IRQ 7 doesn't work for your sound card, try 5 or 10.

- Attach amplified speakers or a stereo amplifier to the sound card (unless the sound card has an on-board amplifier).
- Adjust the volume control on the card itself, and also run the sound card's mixer utility (you'll find it on one of the disks that came with your card) to invidually adjust volume and allow micro-

Run the MSD>EXE utility (from Windows 3.1 or DOS 6.x) and press Q to see who's got dibs on

your interrupts.

phone, line, and CD-ROM inputs.

Mark the jack for the microphone so you

won't plug it into

cards "step on" the sound card's 220H

address (worst culprit:

network or CD-ROM

the line input jack by mistake. The microphone won't record if you plug it into the wrong jack.

 You need to connect a special cable (available through many dealers) between the CD-ROM card and the sound card to automatically play CD-ROM music.

Otherwise you have to plug the CD-ROM's output

 Don't let other

card's line input.

Don't let other

 Don't let other cards "step on" the sound card's

220H address (worst culprit: network or CD-ROM cards). Your sound card may also use another address, like 330H, so make sure it's available, too.

cards).

- If IRQ 7 doesn't work for the sound card, try IRO 5 or IRO 10.
- If 16-bit DMA fails (channel 5 usually), try the 8-bit DMA channel 1.
- Try reinstalling the sound-card drivers, or obtain a new version of the drivers

Turn your computer off instead of using Ctrl-Alt-Del to reboot.

directly from the sound-card manufacturer, a bulletin board sys-

tem, or from an online service.



Common CD-ROM Solutions

After you've ironed out IRQ, DMA, and I/O conflicts, try these tips to get back into the spin of things.

- Try another disc to rule out a badly manufactured CD-ROM, or try cleaning the disc.
- Make sure the disc is not an audio CD unless, of course, you want to
- play music.

 Put the disc in a new caddy (if applicable to your drive).
- With SCSI devices, make sure the last device is terminated, and if there are no external SCSI devices, the host adaptor card must also be terminated.
- Use the latest version of MSCDEX (the DOS 6.x version, not the one that came with your CD-ROM software).
- Try turning your computer off, then on, instead of using Ctrl-Alt-Del to reboot.
- To read a poor quality disc, check your manual: your drive might allow you to temporarily disable doublespeed mode.
- If poor performance plagues you, or you can't get Photo CD support, look for improved CD ROM drivers, or substitute third- party drivers, such as CorelSCSI.
- Try disabling TSRs and drivers in AUTOEXEC.BAT and CONFIG.SYS by adding the word REM to the begin-

ning of the line. Re-enable them one at a time until the problem returns, and you've found the culprit.



Care for Toast With Your Scrambled Video?

Before wailing and gnashing your teeth over a dead display, consider some potential sources of failure:

- Check the obvious: power connections, brightness/contrast settings, horizontal/vertical controls.
- . Unplug the video cable and look for mashed or mangled pins: straighten them gingerly (they can snap off if overflexed) with a pair of needle-nose pliers. olf vou've switched to a new video card, or selected a higher video resolution, you may discover your monitor won't support the higher frequencies, hence a screen gone haywire - and this can damage your monitor if you don't turn it off quickly and reboot. Your video card may include a DOSbased monitor setup routine, or you may have to adjust tiny switches or jumpers on the card to match the horizontal and vertical frequency capabilities of your monitor (which are listed in the monitor's manual)

If Windows multimedia performance is poor, make sure you're using a 256-color display driver and 640 x 480 resolution.

. If you plan to use Super VGA quality graphics, buy a .28mm dot pitch display - .39 is acceptable for 640 x 480, but grainy. Anything worse than .39 is actually just a converted television tube. · With Windows, make sure you're using the latest version of the correct display driver for your card. Some cards won't support the standard SuperVGA driver, for example, and you must use the disk that came with the card. Use plain VGA drivers in the meantime. Symptoms of a buggy video driver can be misleading — these include problems with printing, resource depletion, and frequent General Protection Faults. · If multimedia performance in Windows is poor, or colors are distorted, make sure you're using a 256-color dis-



play driver and use 640 x 480 resolution.

Modems and Meeses

Both modems and your mouse/trackball vie for limited serial ports (also called COM ports, short for communications). If you have an internal modem, be sure to disable the corresponding serial port inside the computer. This may be on the motherboard, on a stand-alone serial/parallel card, or combined with the hard-drive controller card. Other tips:

• If your mouse dies, exit Windows and run the DOS mouse driver to reset the mouse. However, you don't need to routinely use the DOS mouse driver if you

run only Windows programs.

- You can't plug in the mouse after Windows starts. Exit Windows, plug it in, and restart Windows.
- Use the correct mouse driver in Windows. If you have a generic mouse, try both the Logitech and Microsoft

High-speed modems and Windows mix like oil and water, since Windows is too busy to reliably service COM port interrupts. Substitue highspeed 16550 serial ports. compatible mouse. One of them will give you better tracking.

• If you can't

connect, try setting your modem to a lower baud rate to account for poor phone lines. Newer modems feature automatic baud rate adjustment, and error-control protocols.

- Ask your phone company how to disable call waiting to protect your online sessions from interruption. Add the code (e.g., *70) to your dialing string.
- High-speed modems and Windows mix like oil and water, since Windows is too busy to reliably service the COM port interrupts. Substituting high-speed
 16550 serial ports is your best bet.



Advanced Windows Troubleshooting

The first thing to try if Windows won't start is to try running it in Standard mode, using WIN/S. If standard mode works, then you're running afoul of the advanced features of 386 Enhanced

You can't plug in the mouse after Windows starts. Exit Windows, plug it in, and restart Windows. Mode, so named because it requires a 386 or faster processor to

(Windows for Workgroups 3.11 does not support standard mode, however.) You can also try the following switches when you start Windows. First, try them all (WIN /DE'SVX), then try removing one at a time until you've found the one that causes the problem. You can make a permanent change to your SYSTEM.INI file to cure the problem (add the equivalent lines just after the [Enhanced] keyword).

*WINDDF turns off 32-bit disk access, equivalent to adding 32BitDiskAccess

No to SYSTEM.INI.

- WIN/D:S is equivalent to adding System ROM Breakpoint=False to SYSTEM.INI.
- WIN/D:V is equivalent to adding
- VirtualHDIRQ=FALSE to SYSTEM.INI.

 WIN/D:X is equivalent to adding
 EMMEXCLUDE = A000-FFFF to SYSTEM.INI. If this works, you have an
 upper-memory conflict. Rather than
 excluding the whole block, try EMMEX-

CLUDE=C000-CFFF and see if that

works, or D000-DFFF, etc., then narrow down the range until you find the block of memory

Always back up your hard drive before drastic system changes, such as adding Doublespace or Stacker.

that causes you trouble.

- WIN /D:C (with Windows for Workgroups 3.11) turns off 32-bit file access. You can turn it off permanently by running the 386 Enhanced icon from Control Panel.
- If an error message flashes by too fast to read, try WIN > ERR.TXT, then use TYPE ERR.TXT to read the error message.
 WIN /B creates BOOTLOG.TXT

which shows you how far Windows got

An Ounce Of Prevention...

DOS 6.x adds a new MSBACKUP command (with a Windows version) that makes it faster and easier to back up your computer to floppies. Although you can always reinstall software from the original disks, you'll at least want to back up the files you create. Tape drives are now more affordable, and you can fit your entire hard drive on a single tape. You can also "dump" little-used programs to tape, and get them back whenever you want. Always back up your hard drive before drastic system changes, such as addine Doublesnace or Stacker.

When encountering PC problems, you may begin to suspect that your computer is contaminated with a computer virus. It's not likely. Even if you acquire files from bulletin boards or other online services, you're probably safe: all reputable online services prescreen files for viruses. Nevertheless, acquire a virus scanner or use the Microsoft Anti-Virus built into DOS 6.x to scan your hard drive routinely. If you catch a virus scon enough, it can be removed without requiring you to reformat your drive and reinstall all software from backups.

On the other hand, virus interceptor software can be troublesome, and give false positives that are unnecessarily worrisome. If you have trouble installing new software, remove the line that loads the virus interceptor from either CON-FIG.SYS or AUTOEXEC.BAT

Hear, Hear

Let us hear your stories and PC nightmares. Although we can't answer every individual request, we'll compile the answers to common problems into a growing database of troubleshooting tips. Look for these tips in upcoming issues.



On the DISC! Check out the diagnostic tools ar

You'll find a wide range of useful PC multimedia tools on The DISC! Some are diagnostic aids which vill test, check, and monitor the inner workings of your system, while other programs will help you harness the multimedia capabilities of your computer to produce eye-and ear-catching presentations.

The investigative programs, or ystems moops, will provide you with many of the essential details of the devices and drivers installed on your machine. There are also utilities to detect IRQ conflicts and troublesome BIOS assignments, and even one that will evaluate system performance and suggest ways to resolve hardware/softyme difficulties.

The creative packages include image manipulators, animation editors, morphing generators, and other graphics and sound utilities — some work under Windows, but most still run from DOS.

A word of warning is in order: multimedia may not be rocket science, but for the casual computer user it runs a close second. To make the most of it, to have fun with multimedia, you need to familiarize yourself with some of its technical terms (for example, IROs, bus types, UARTs, and BIOS segments) and the complex demands multimedia makes on personal computers - and the documentation to help you with these programs will be found in the respective subdirectories. Creating anything worthwhile requires patience and imagination, and this is one area in which it really does pay to read the manual first.

THE DAVID EOWIE INTERACTIVE CO-ROM

Step into a whole new world of entertainment.



CO ROW FOR THE MACINTOSHO

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Like it or not, sex on CD-ROM is big business, and it's here to stay. We did a little digging and — whew! — did we find out a few things.



Randy Chase and the Editors

clentless. From the mildly crotic to hardcore XXX, "adult" CD-ROMs are everywhere. Mail-order companies are thriving on them. Weekend CD-ROM flea markets are awash in sex discs. And retail computer software outlets are feeling pressure to carry them. Just as sex on videotape helped fuel the growth of the VCR market, sex on CD-ROM is helping to drive a sizable segment of the burgeoning multimedia market.

Adult CD-ROMs — now a multi-million dollar business — raise a number of important social and cultural issues. X-rated videos are being digitized for CD-ROMs 24 hours a day, seven days a week. New interactive adult movies are being created to put the computer user in the midst of the action. And with technology always leaping ahead of the social and legal status quo, alarm bells are beginning to ring. Ouestions are being asked.

For the first time in history, interactive digital technology now permits anyone to manipulate on a multimedia computer screen the actions — sexual or otherwise — of a digitized man or woman in a very lifelike audio-visual environment.

Not unexpectedly, the issue of mandatory or voluntary ratings has begun to be raised. And just as with the music, movie, and video-game businesses, the controversy over policing the content of adult multimedia will be with us from now on.

But none of this should be much of a surprise. The ardent affair between sex and technology has a long and torrid history. The scandalous French post-cards from the turn of the century are now collectors' items. While Chaplin was making history as the Little Tramp, others were cavorting nude in the "blue" movies from Hollywood's pre-talkie era. And, as noted, the birth of the video-rental business was sustained through its early years largely by profits from the adult-movie category.

Pornography, through the years, has invariably been a male-driven cultural phenomenon, and considering the still heavily male bias in the demographics of the computer world, it comes as no surprise to see the rapid growth of this new multimedia market.



In the late 1970s and early 80s, the dawn of the home computer, soft-ware developers were timid but quick to begin exploring the sexy side of silicon. Few readers will be old enough (in computer years) to remember when Sierra On-Line gave birth to the first commercial software title addressing sex. Soft Porn was the only all-text adventure Sierra ever published (and, yes, that was Sierra's own Roberta Williams in the hot tub featured in the package artwork).

Soft Porn itself has been long for-

gotten, but the game triggered a chain of events that led to the integration of sexual themes into mainstream software. At Sierra, a leading pioneer of the graphic adventure, discussions began about developing a graphic version of Soft Pores.

Sierra programmer Al Lowe, who had and Winnie The Pooh & The Thousand Acre Woods, was asked to take a look at Soft Pon. Lowe recalls, "I looked at it, and it was so dated and out of touch. I said 'This is like a guy who would wear a leisure suit!" With that off-hand observation, the first cult hero of the software world, Larry Laffer (aka Leisure Suit Larry), was created.

The High-Tech Dating Game

The human dating ritual is natural fodder for interactive software. But the first multimedia title to explore this area, Tsunami's Man Enough, has failed even remotely to live up to its billing as an interactive "social adventure."

The player, who for obvious reasons probably won't be female, is challenged to win a dream date by verbal jousting with a variety of prospective companions available through a dating service. Driven by multiple-choice dialogue menus, the game relies almost exclusively on double entendre and sexual innuendo.

"It's Bawdy, But That's the Way I Am"





Al Lowe's Leisure Suit Larry, up to its sixth installment, is now making

its debut on CD-ROM. According to Lowe, the difference between the floppy and CD version is "between reading a humor book and listening to a good comedian tell jokes."

Without question, Lowe still reigns as the king of filiratious and bawdy software. His creation of Larry Laffer stands as a software milestone. While the series of Leisure Suit Larry games falls far short of the "anything goes" world of adult entertainment, for most of the 1980s Lowe's series was the



bawdiest offering among commercial software. And with each subsequent release in the series, Lowe gently pushed at the barriers of good taste. Many would argue that he stepped across that difficult-todefine line more than occasionally, but it was never a serious issue because the signature trademark of the

Leisure Suit Larry series was

"It's like Benny Hill sex," Lowe says of the risqué content of his games. "The games are not pornographic, just funny. They're bawdy, but that's just the way I am. I just happen to have a lot of fun with sex."

With the new release of Leisure Suit Larry 6: Shape Up or Sip Out!, the world's favorite white-suited nerd makes his debut on CD-ROM. The two major technology additions to the CD-ROM version are digitized voice and the use of hi-res 256-color images.



Charmer or bummer?

Occasional use of video footage supplements the large library of digital dialogue, but the game falls flat as a multimedia adventure. Interactivity is simplistic, and the basic story line is fascinating only to boys and men still young enough to be charmed by suggestive and teasine conversation.

For those interested in being digitally correct, several programs are available to help bring the ancient rituals of dating in line with the multimedia world. Between maintaining contacts and scheduling dates, the products also provide a collage of images obviously intended to stimulate the lackadaisical or unmotivated user.

Playboy's Electronic Datebook was obviously designed to cash in on the current trend toward sexy software. As a personal information manager (PIM), Playboy's offering falls short. The tacked-on graphic images (not included as part of the basic program installation) are all the program has to offer. Images, taken from the magazine's centerfolds and Vargas girls drawings, are nicely reproduced. And it includes the classic Marilyn Monroe nude.

Media Vision counters with a stylish and versatile PIM that falls into the cheesecake calendar category. Planit Paradise is one of the offerings in the Daily Planit series (the other two are Planit Adrenaline and Planit Earth). Planit Paradise features bikini-clad models from Swimwear Illustrated magazine- and is the best-selling of the three versions -but at its heart is a versatile PIM that boasts a variety of nonsexy features, ranging from on-line jokes from National Lampoon and trivia messages from Isaac Asimov to voice-recognition capabilities. (See a review of Daily Planit on page 112 in this issue).

Valerie: The Pioneer

In 1990, you probably didn't have a CD-ROM drive. The odds are better that you heard of Virtual Valerie. Created by Mike Saene of Reactor, it was not only the first adult-theme CD-ROM, but was also one of the first CD-ROMs in the entertainment category. Volerie, sporting unique, top-tate graphics, featured one of the first ST-triaul" worlds. More precisely, a virtual apartment building. You can't explore the

entire building, as well as objects in her apartment, including Valcric's own copy of Virtual Valerie. Play her version of the gaine and you're back at the start; play the game within that game, and...ggain, you're back to the start, and so on, ad infinitum: The sexual content, starts when you begin to interact with Valerie herself!—if you respond to her the right way, she undresses, and...you guess' the rest.

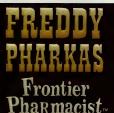
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An Observation on Gender

bird's eye view of a trade show I attended recently said it all. Hordes of men were crowded into one aisle in the rear of the hall. Were they engrossed in a preview of a new Microsoft title? Or a new CD-ROM on baseball. Are you kidding? It was girts.

Women, in all forms of undress, and performing all manner of sexual acts on the computer screen. Here we had the electronic version of the action on Times Square. Only the barkers weren't promising live performances. Instead they were touting interactivity, a chance to dick on a menu and take digital command of any number of women.

Taking offense is a waste of time. It's still took-but-don't-louch, just presented in a different format with a little more control. The words pathetic and adolescent spring to mind. More disconcerting are the implications for future male-fenale relations. Fellows emulating the pick-up skills of Symore Butts are in for a rude awakening. The dialogue? The worst of frathouse discourse. The scenes are written as if women are brainless. And this is the age of AIDS — I didn't see any condoms.

The porn producers haven't left reality behind completely, however. Each disc comes equipped with a panic button...just in case the boss walks up. It's all rather silly, and somewhat sad. We just got rid of the girlie calendars on office walls and now they've gone high-tech.

I do get the feeling some of the more nerdy porn makers aren't quite as confident as the were last year. What was once a thumb-yournose-at-society activity has turned into a serious debate. As I toured their booths, they kept stressing the deverenes of the interactive games, the intellectual underpinings, and tried to underplay the sex. Who's kidding who here?

Judging by the crowd and the sales figures, there seems no doubt that many men live in their pants. My prediction: a left-handed mouse designed for use by right-handed people will be a hot-seller.

- Anne Gregor



In the working lexicon, "erotica" is divided into two categories: softcore and hardcore. While mudity and a variety of simulated sexual activities can be found in movies rated R, NC-17, and Non-Bated, it's the actual display of CD-ROM generating the most publicity is Penthouse Interactive's Virtual Photo Shoot. Designed to simulate a photo session for the magazine, the product delivers excellent multimedia. While the long-term playability is obviously quite limited, the quality of video is as good as any in the CD-ROM market.

The sleek and attractive interface is one that could serve as a model for







Penthouse Interactive is a top-seller and a technically smart piece of multimedia. The

object is to select a model, play as Penthouse photographer, and then receive an evaluation by Bob Guccione. Two more volumes are in the works.

penetration and other explicit sexual activity that draws the defining line.

As we begin our discussion of CD-ROM products falling into these categories, we'll throw up a red flag: if you're offended by the nature of the subject matter, skip to another article in the magazine. The products in this category are clearly sexual in nature and involve nudity.

The softcore or "mature market "

multimedia designers still attempting to find an efficient command structure that doesn't interfere with the graphic design of the game. The program consists of libraries of video footage featuring three Penthouse models. The challenge is to conduct a photo session, capturing still shots of the models as they pose in various video sequences. At the end of the session, Penthouse publisher Bob Guccione critiques the collection

of photos.

According to Matt Ferro, vice-president of Video and CD-ROM at Penthouse, "the response in the international market has been extraordinary." So successful, in fact, that Penthouse is readying two more volumes for release. The sequels will include new models, more poses and, as Ferro explained, "even two styles of lingerie to work with before you get down to total modity."

While the primary sexual content in Virtual Photo Shoot is nudity and suggestive poses, some of the later video sequences in the photo sessions include some touching that could best be described as intimate.

Like the Penthouse title, there is a proliferation of CD-ROMs featuring collections of photographic images. These CD photo albums come in three distinct flavors: the soft-core variety similar to photo spreads in mens' magazines, soft collections that offer more explicit poses, and collections featuring X-rated images. Most titles in this category are grainy and poorly done.

One of the most stylish in this group is American Girls from New Machine Publishing. Containing more than 200 nudes, this collection features high-quality photography and bi-res images done in a style more reminiscent of Playboy than Penthonse.

Next to the Peuthouse product, the soft title garnering the most attention is Scissors N Stones. This game from Pkis Interactive is based on the classic childhood game, Scissors, Paper, Stones, and ticarries a strip-poker theme played with dice. If you win, the woman removes an article of clothing; lose and she gets to replace a previously removed item. Scissors N Stones doesn't break any new ground in game design, but its stylish interface and high-quality imagery have helped it sell quite well.



et's face it — the obvious appeal of dadult products, whether movies, magazines, or CD-ROMS, lies in the uninhibited display of sexual activity. Hard-core adult products on CD-ROM are in three categories: photo collections, digital movies, and interactive products. The media attention surrounding sex and CD-ROMs has been focused primarily on those titles offering some level of interactive design. This category, however, while representing the smallest portion of the current market, does provide a glimpse into the future.

The collections of still images and the CD-ROM versions of adult movies are essentially transferred information



Some adult publishers are going the extra mile for technical excellence in image quality. Starware's Double Play is a leader in this category.



High-Tech Peep Show?

Some CD-ROM mail-order dealers will freely admit that a sizable portion of their business is for adults-only titles: So who buys: these discs? Most of them don't seem to cepresent good value, even for the devotee.

The display size and quality of the images can hardly compare to the glossy magazine photos. And even much cheaper video tapes make computer-based movies look like peep-show, machines. Mey — maybe that's it —

from conventional media. The photo collections obviously parallel the traditional magazine, and CD-ROM movies are, for the most part, simply X-rated video tanes on disc.

In terms of technology, some of these companies are doing a good job. maybe their appeal lies in the curious paradox that titillating CD-ROM material offers both the novetty of a high-tech medium while delivering a sleazy kind of nostatgia.

The viewer can protend to be working on a spreadsheet at home, when in fact he's, watching Terf Weigel spread out on the sheets, Perhaps that's the appeal and perceived value of adult CD-ROMS — they've put the smut Back into dirty pictures.

Starware offers a couple of titles in Kodak's Photo CD format — Double Play (volumes I and II) and All American Hooter Heaven — that could establish a graphic standard for adult fare. While the subject matter is obviously a question of personal taste and preference, the

striking clarity and color quality in these packages is as good as the current level of technology can support.

But with many X-rated photo collections, rip-off is the by-word. Some, in fact, are inferior to those freely available on bulletin-board systems that serve as distribution centers for such material.

Digital movies, originally filmed for original powers or VIFS, represent the fastest growing type of adult CD-ROM products. With vast resources of film available, this option requires little financial investment for publishers — the conversion to Video for Windows or Quicktime formats is relatively cheap and painless. The resulting quality, however, varies greatly. Products like Virtual Photo Shoot or Scissors N Stones enjoy an enormous advantage in quality because the video was filmed to maximize the quality



of digital playback, specifically in controlling the background of the filmed sequences. With digital video, there's a significant improvement in imagery when the film's backdrop is either solid black or at least doesn't present a cluttered, colorful image. And it's one major reason that many of the titles originally made for film or tape look so muddy.

The common criticism of the filmto-CD-ROM product — often labeled as interactive multimedia — is that it makes only a token effort at delivering some level of interactivity. Many of these titles are produced by taking the highlights from an X-rated movie and breaking them into smaller digitized files, usually presented as chapters or scenes. Normally, the user "interacts" by determining the viewing order of the sequences, or by fast-forwarding through the footage.

One company has acknowledged the limited value for the relatively high prices of digital movies by dropping prices. New Machine Publishing has reduced prices for many of its titles. Company cofounder Lawrence Miller explains, "We dropped the price on our digital movies to bring them more in line with the actual value of the product. We see digital movies on CD for what they are, and placed next to a VCR, they really can't compare; at least not until people start buying MPEG boards or moving to a hardware platform like 3DO."

Several titles from Fat Dog Productions offer an innovative approach in their menu system — instead of offering a scene-by-scene selection, menus are organized by sexual activity and cast members of the film. Selecting an activity or couple, for instance, will provide a second menu from which other scenes can be selected. Simplistic, sey, but in the world of CD-ROM, it's interactivity.

Subjects covered in these movies are





By many estimates, New Machine's Dream Machine is this year's major adult CD-ROM release. Its interface resembles a traditional computer graphic adventure, and it offers multiple paths and endings.

as diverse as those covered in conventional x-rated media. We won't detail the array of topics here, but suffice it to say that whatever the personal interest, fantasy, or fetish, there's probably a title.

The potential for cybersex, however, is not found in videos ported to CD-ROMs. As New Machine's Miller explains. "The real value added in multi-

media lies in the interactivity that's possible with a CD-ROM, not in the video technology."

After two topselling releases, New Machine is clearly positioned as the early leader in combining adult content with interactive interfaces. Last year's Interactive Adventures of Seymore Butts has been the dominant adult multimedia title in terms of sales, and the only challenger currently on the market is New Machine's Dream Machine. Compared to mainstream adventure computer games, the plot can best be described as ridiculous. However, when the standard of comparison is the adult market's definition of "interactive," Seymore is the leader.

The story line isn't complex. Seymore owns a camcorder and is blessed with the offbeat talent of meeting



women and convincing them to perform a variety of sexual acts in a variety of locations. His usual technique (hopefully this won't spoil the plot!) is to persuade his would-be subject that starring in his home movie is the perfect way to get even with an ex-boyfriend.

Aside from your selection of various destinations for the traveling film producer, there's a thin sub-plot involving Seymore's attempt to seduce a lady he meets in the game's opening scenes. For those too impatient to wander through the game, a double-click of the mouse will cut right to the finale with Seymore and his paramour. In keeping with the interactive theme, however, the voyeur (oops, player) can select from a variety of passionate closures.

Dream Machine is the year's major adult release. Using an interface more closely resembling an adventure game than an adult title, the player can explore a 3D-rendered world of sexual fantasy. The game environment offers a variety of paths and endings, depending on the player's interaction with the game's hostesses and the sequence of fantasy scenes uncovered. While the degree of interactivity falls short of a traditional computer-adventure game, it does indicate where this growing market is headed.

A new release from Crescent Publishing Group falls into a product category of its own: the adult magazine on CD-ROM. Hot Wire comes from the publishers of High Society and Cheri magazines. Combining approximately 200 photos, 25 videos, and a library of phone-sex recordings, Hot Wire is slated to be published quarterly. Crescent did, however, indicate that the release schedule for future issues would depend on sales of the premier issue.



The rapid growth of this subset of the CD-ROM market is surprising to many, but others see it as a natural progression. Drawing on his decade of experience in the adult-movie industry, Wixd Interactive President Dave James projects a faster growth rate than that enjoyed by the adult movies on video tape. "Now that society has accepted X-rated entertainment, it's proving much easier for adult CD titles to take off than it was in the early eighties for video."

Estimating the size of the largely underground industry is difficult. How do sales figures for these titles compare to mainstream CD-ROM sales in national chains? Several publishers clearly stated that they didn't want to let others know





The storyline might be ridiculous, but buyers didn't care: Seymore Butts was a inuge seller. (Above, we've blanked out the text in the user options — each offers an explicit phrase for a sexual act.)

how profitable this business was for fear of encouraging new competition.

New Machine's Lawrence Miller is one of the few willing to address the subject of sales. "Until recently, ten to fifteen thousand units was considered a best seller for a CD-ROM. The *Dream Machine* was half way to that level in the first two weeks of release."

Vivid's James isn't willing to discuss

units sold, but volunteers that the soft version of Vivid's Super Models Go Wild, is "near the top of the video sales charts in Billboard. This is the same sales chart with Aladdin and The Bodyguard and should give you some indications of how well that CD is actually selling without my revealing any actual numbers."

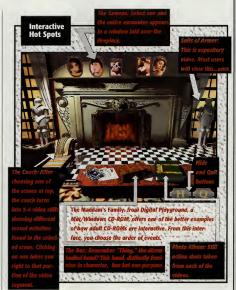
In light of the on-going controversy over violence in video games, there seems to be a clear consensus about the need for a standardized rating system similar to that used by movies and video tapes.

Al Lowe is strongly supportive of such a system. "I'm opposed to censorship, but I'm strongly in favor of good parenting." He explains that a rating system would provide the guidance needed by parents to determine what is appropriate for their children. He sees the rating system being needed not only for adult titles, but also for mainstream releases. "I would think nothing of letting my 18year-old play Larry 6, but I don't think it's suitable for my ten-yea-old."

Judging from the increased activity in the market and the improving quality of the products, it's clear that the cybersex software market is only beginning to impact the industry. Where all of this uninhibited high-tech activity will lead is a favorite subject of speculation.

"The object of any simulation is to make its a real as possible," says Penthouse's Ferro. "In pursuit of virtual sex, the obvious ultimate goal is to create a virtual sex experience that is totally seamless and unobtrusive without having to visit your doctor!"

On a less philosophical level, Lawrence Miller offers a view of what cybersex will offer consumers over the next few years. "I think you're going to see a lot more cheap crap on the market. The costs will come down, and the cream will rise to the top. You'll see products become more and more interactive as the



video quality gets better and CD-ROM drives get faster."

Several publishers mentioned that their future adult-only products would provide the interactivity and play value of mainstream entertainment titles. Also, expect to see some hardcore-software publishers develop R-rated entertainment titles with greater mass appeal.

Mainstream entertainment publishers, well aware of the profits realized in the adult market tier, have hinted at exploring more adult themes within traditional computer entertainment. And don't be surprised to see some distribution or development liaisons formed between the traditional software world and adult developers.

Like Pandora's mythical box, once opened, adult software is here to stay. The issues now are how the software industry handles adult themes within mainstream products and how the x-rated products will be integrated into the industry. Like it or not, the multimedia world has lost its virginity, and the focus is shifting from abstinence to the practice of safe software.

Randy Chase is a free-lance journalist and columnist for The Portland Oregonian. He has been covering the computer industry for 12 years.

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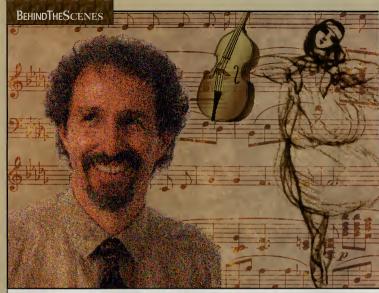


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The (Classical) Music Man

Meet Robert Winter, the extraordinary man behind multimedia Beethoven, Mozart and Stravinsky. And learn why his latest work is his best yet.

Anne Gregor

ew Year's Day is a time for reflection and, sometimes, for change. Resolutions adopted in haste the evening before are revisited, and either shed or confirmed. On lanuary 1, 1989, Robert Winter, a music professor at UCLA, made a promise that would turn his professional life upside down, but he didn't know it.

On that day, Bob Stein, president of The Voyager Company, then a producer of movie-based laserdiscs, arrived at Winter's bungalow in Santa Monica, California, with an Apple CD-ROM drive tucked under his arm. "I thought it was the strangest-looking thing," recalls the initially skeptical Winter. But the visitor was persuasive. Stein showed Winter, whom he had tagged a "multimedia kind of guy" a decade before, the technology's



has followed that coup with increasingly detailed presentations: Igor Stravinsky: The Rite of Spring; Wolfgang Amadeus Mozart: The "Dissonant Quartet"; and now Antonin Dvorak: Symphony No. 9 "From the New World". But it all began with Beethoven, a program that strongly influenced CD-ROM software developers. Many of them have since attributed

the midst of a conference laden with spreadsheets and word processing programs, "people would stand for thirty minutes as if they were deer in front of headlights," he says. They would buy the program and then a CD-ROM drive - cost was irrelevant.

Today, Winter works from a 400square-foot garage attached to his



A click of the mouse on each label elicits a closeup and more detailed explanations (from Mozart: The "Dissonant Quartet").

a near-religious conversion to their first sighting of Winter's work.

Its real significance was hard to appreciate as the program was being written. Then, in August 1989, Winter and Stein were showing Beethoven at MacWorld in Boston. The program, an analysis of the composer's life, his com-

> position, his orchestra, and the Schiller poem that inspired the symphony's joyous resolution. was on two floppy disks and a CD. Winter

were in awe. In

of electronic equipment. The multivolume Groves Encyclopaedia of Music lines the wall behind the computer. He is his own researcher, artist, transcriber, sound editor, recording engineer, piano player, and occasional programmer. He is intense, a hypnotic storyteller. When he turns to demonstrate a program, he finds it difficult to break away. He'll leap to the piano to play a passage from a future work. Robert Winter is a focused man.

Santa Monica bungalow. His office

exemplifies the digital world. He sits

at his Mac, surrounded by thousands

concert grands, and dozens of pieces

of books, records, tapes, CDs, two

In many ways, Winter epitomizes an emerging species of CD-ROM designers - lively and eclectic minds

ability to combine text, sound, and pictures. Winter swallowed the bait. Here was a way to write about music with sound, something a book could not accommodate.

Five years later, Winter, 47, is considered one of the premier CD-ROM

designers. His Ludwig van Beethoven: Symphony No. 9 became the first consumer-oriented CD-ROM on the market, combining CD technology with Hypercard software, first on the Mac platform and then in MPC format from Microsoft, He



score with the help of Winter's highlighting system (from Beethoven's 9th).

from a wide range of backgrounds. A self-described polymath, Winter's interests span the gulf between science and the arts. Life began well away from the piano keyboard. Winter was a physics major until his junior year at Brown University, and he had left behind the piano lessons of his youth. "It never occurred to me growing up that anybody was actually a musician," he says. But when the conversion came. Winter's initial music studies launched a pattern that has

followed him through his career: a refusal to be channeled in any way. He acquired degrees in both piano playing



Listen to the orchestra, and then to the parts played by individual instruments (from Stravinsky: The Rite of Spring).

and music history and theory. "I hated specialization," he confesses.

As a music professor, Winter was more a star than a pedant. Students at UCLA clamored to enroll in his classes. A series of public lectures about Mozart and Beethoven included slide shows and movies, with Winter playing the musical examples to accompany his text. His music series are frequently rebroadcast on public radio. Winter gathered together all those experiences in other media. and thought about his approach to a

First Look: Dvorak's Symphony No. 9 "From the New World"

Dvorak arrived in America in 1892. A year later his Symphony No. 9 in E Minor, Op. 95 ("From the New World") was premiered at New York's Carnegie Hall. It

Press here for

and specific

listen to musical

Carnegie Hall.

in Anna

was heralded as a breakthrough in composition, a Czech composer's impressions of a United States influenced by the songs of Native and Black Americans.

In his treatment of this work. Winter widens his scholarly analysis of a piece of music, using a 1981 performance by the Vienna Philharmonic under the baton of Kvril Kondrashin. He

has constructed a cultural history of America at the turn of

the century, using the symphony as his cornerstone. Text. sound, graphics, and images are built on top to reflect and expand on Dvorak's observations and Americans' experience with him, whether in politics, history, economics, sociology, or music. (A non-color version for the Mac was slated to ship around the time that this issue was going to press, and an MPC version is

his adventures. Hundreds of additional sounds, including a rare recording of black singer, Harry T. Burleigh, singing one of Dvorak's favorite spirituals, "Go Down

Moses," supplement the basic symphony. A "Direct Testimony" section provides the text of more than 200 historical documents, such as newspaper clippings, related to the composer's three-year stay.

Winter has. once again, expanded the linkages between sections. In "A Close Reading." users can flip between text-based commentary, a



New World Symphony's Interface

scheduled for fall release.) Improved programming techniques

allow Winter to add significantly to the information base. A neighbor who knew the Dvorak family in Spillville, Ohio, recounts

highlighted score, and more in-depth text. The bibliography, historical texts, and commentaries are also linked. The action is smooth. A path with a 16-screen capacity permits an easy retracing of your steps.

CD-ROM program. "I simply asked myself, 'What is it I would like to know?' It occurred to me that I would like to know what is happening as the piece is playing," he says. The result was a chapter titled "A Close Reading," the central component of Winter's music CD-ROMs. The user can listen to the score, read a brief description of the passage, flip to a more detailed explanation, and, in the later products, follow the notation.

He designs his programs to be quite intuitive. "If I want to go to the fourth

movement, I should be able to go there," he says. "I want people to go back and forth at will. In so many programs I see people reduced to moving around the screen like crazy to get something to happen." He believes that if a program is clunky, people will walk away. Hence Winter's designs are fluid. Chapters and content divisions are easy to access. A path can be swiftly retraced. The contents are also multi-level. Users can listen straight through, or choose a closer reading. "I start them at the bubble-bath

on a trip from Prague to the

a fabulous post-premiere

New York premiere, and buys

bash with the money earned from answering bonus ques-

tions correctly. Trains puff off

from the station, boats sail

through New York harbor,

and users glide through a enlightening experience.

level, then the score, the commentary, and a more detailed commetary," he savs.

Metaphors are drawn from everyday life. In Beethoven's 9th, stability is defined as "an apartment you can make the rent on" and conflict as "sparring with a boss who doesn't know how to give strokes." There's always a place for his wry wit. "We've arrived" flashes on the screen in big, bold type as the robust, triumphant finale plays. Beethoven winks and "Zer Gut" blasts from the speaker when players answer a game question correctly.

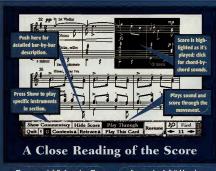
For Winter, the discovery of the silvery disc with the magical properties has changed his life. Two decades after joining the UCLA music faculty and a year after his term as Chair of

the Music Department at UCLA, he's shifting to half-time teaching to free up more of the 2000 to 3000 hours he reckons it takes to create each of his programs. Winter now has a CD-ROM triptych in mind: Crazy About Ragtime, Gershwin and Rhapsody in Blue, and an early history of rock 'n' roll. Combined with The New World Symphony, he plans to create a quartet of "American cultural history." Winter says, "I say to people that I aspire to the condition of Steven Spielberg, to be a filmmaker in this medium. I'll make as many as I have time, money. energy, and inspiration for."

Anne Gregor is a Los Angeles-based writer, classical music aficionado, and sometime pianist.

Info

· Microsoft Corp. 1 Microsoft Way, Redmond, WA 98052 Phone: (206) 882-8080 The Voyager Company 1 Bridge St., Irvington, NY 10533 Phone: (800) 443-2001



The program is full of surprises. The audio examples. A digital board game, glossary is packed with musical notation and "Getting to Carnegie Hall," takes the user

THE STRILL TO THE TOTAL JOA BILL

The program is full of pleasant surprises, including this original Dvorak sketch of the symphony, dated 1892.

The PowerCD Solution:

Multimedia Directed Learning for the Masses



What?! 500 CD-ROMs from one company in two years? You bet. ZCI's PowerCDs are off to a flying start, with quality multimedia titles aimed right at the consumer.

Selby Bateman

Zane Pilzer of standing still, blocking traffic, or having to play catch-up.
The multi-millionaire business entrepreneur and popular book author has made his millions by staying ahead of the conventional wisdom. Now, his Dallas-based ZCI Publishing is rolling

out the PowerCD line of educational and reference CD-ROMs that he's convinced can carry forward one of his longtime dreams — bringing the knowledge, wisdom, and information of a virtually limitless array of topics to individuals in an interactive, directed medium.

Since the 1970s, Pilzer has been fascinated by the idea of bringing expert



On the DISC! out the "Endangered Species" nple, especially created by ZCI our readers (Windows & Mac).

teachers on every subject to every possible student. That fascination led to his study of interactive learning systems, and, ultimately, to the multimedia PowerCD.

At the heart of Pilzer's dream is the PowerCD authoring and publishing engine, an interactive multimedia-based



Every PowerCD title carries a common primary interface, with hot buttons across the bottom of the screen: an opening "overture" presentation, Reference, Go To, Search, and Options buttons. Information along the top of the main screen always lets you know where you are.

system which he designed and continues to refine. In brief, the PowerCD system is meant to produce educational and reference multimedia programs that permit users to engage in "directed research." And each PowerCD is designed to run under DOS, Windows, or on the Macintosh.

The authoring system is a Windowsbased multimedia tool that's accessible to a broad range of potential authors — "experts" who know their topics inside and out, who are serious about those subjects, and who want to share their knowledge with others.

After releasing its first nine titles, ZCI is now planning to have more than 120 PowerCD products available before

the end of this year. Even more ambitious is the plan to have 500 ready by the end of 1996. (And part of that plan may very well depend on some CD-ROM Today readers. See "Want to be a PowerCD Author?" on page 66.)

ZCI is working closely with Blockbuster and other retailers to try to distribute the huge lineup effectively in innovative ways.

Pilzer says that PowerCD titles will fall into three categories: general reference, which includes all of the first nine products; specialty reference, which are products for specialists, and devotees that take the general reference products to a professional level; and educational curriculum, smaller packages focused on

The Jay Robert Nash Crime Series of PowerCDs







Click on David Berkowitz' name to move to a hypertext location for more "Son of Sam" information (from The World Encyclopedia of 20th Century Murder).



These likeable guys, John Scalise and Albert Anselmi, were Al Capone's two favorite killers (from The Dictionary of Crime).

Try your hand at questions, such as this one about the crime boss of Chicago (from The World Encyclopedia of Organized Crime)



There are complete exams on each PowerCD title (from The World Encyclopedia of Con Artists & Confidence Games)





You can read about the colorful Judge Roy Bean, "the only law west of the Pecos," then see his picture (from The World Encyclopedia of Western Lawmen & Outlaws).



Mr. ZCI
PowerCD himself, Paul Zane
Pilzer, joins
motivational
guru Tony
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PowerTalk.

Every PowerCD..

- runs on Mac, Windows, and DOS
- requires no installation
- takes up no hard-disk space (runs entirely from disc)
- contains a multimedia screen saver (those shipped after March 1994)

providing a complete multimedia information set on specific titles.

Many of the 500 titles will be in the last category, says Pilzer. Take Macbeth, for example. A PowerCD version would include a complete hypertext version of the play, plus an audiovisual presentation, articles and critical reviews, exam questions, a customized glossary, annotated

commentaries — a complete *Macbeth* compendium.

There are currently eight PowerCD products planned on Shakespeare's works, eight titles on biological topics; the range of topics is nearly limitless.

A perfect example of ZCI's longterm strategy of using "experts" as authors is the six-volume Jay Robert Nash crime series that's among the first nine products.

Nash, the most prolific and wellknown true-crime author in the world, wrote these six PowerCDs, pulling much of the information from his 10-millionword 1990 book, Encyclopedia of World Crime. Each title includes thousands of hypertext pages of information, audiovisual "overtures" that introduce the topics, photos, a glossary of terms, bibliographies, test questions, and additional materials.

These general-reference titles are meant to provide users with "more information on a topic than they'll use in a lifetime," says Pilzer. But that information is presented in a way that directs

the user and offers some guidance and structure to the learning process.

Another good example of the PowerCD system is The Encyclopedia of the JFK Assassination, which was written by well-known Kennedy assassination

researchers Bob Harris and Jane Rusconi, the latter of whom was director of research for Oliver Stone's film, JFK. In addition to the researchers' essays and arguments, the CD-ROM features a 36-minute multimedia overture, including 18 audiovisual presentations; active references to more than 10,000



Read and view the famous Zapruder video frame by frame. to more than 10,000

Then read more about the man by clicking on his name. pages of original source





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material, such as the complete Warren Report, the House Select Committee on Assassinations Report, and declassified CIA reports; more than 1100 photos, including 158 full-screen frames from the Zapruder film; and much more.

The first nine titles each carry a suggested retail price of \$49.95, which will make the street price around \$35. But some of the PowerCDs that are just now reaching store shelves, such as The Encyclopedia of U.S. Postage Stamps, will carry an under-\$25 retail price. ZCI is also planning to explore the rental market with its onslaught of new products.

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ZCI is looking for knowledgable authors to help create its huge line of "directed learning" multimedia titles. If you're an "expert" in an area of knowledge, have a passion for bringing that knowledge to others, and are comfortable working in a Windows environment, ZCI wants to hear from you.

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(Note: Due to the volume of submissions, unsolicited material cannot be returned by ZCI. Send no material for consideration without first getting an agreement in writing.)



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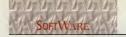
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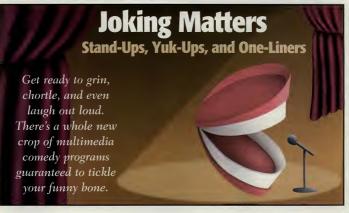


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c're not often amused by our computers. Certainly not as we struggle with spreadsheets or whine at our word processors. But several multimedia developers are out to change that. Companies like Time-Warner Interactive and Sanctuary Woods are determined to lighten your day with their new comedy CD-ROMs.

"Heidi Fleiss told Connie Chung on her show "Eye to Eye" that she would not reveal the names of the people who were listed in her little black books. But she did say she would

cross reference them with the

Packwood diaries."

— Dennis Miller's That's News to Me

Kathy Yakal

The products in the comedy category range from simple joke databases to collections of video clips featuring wellknown comedians and actors doing brief routines or one-liners. Most are orga-



Funny, the first comedy CD-ROM, delivers humorous routines on a variety of topics.

nized by topic and/or performer, so rather than viewing the routines in a linear fashion, like a movie, you can choose to watch what you want, when you want. Sound effects, voice, and visuals are implemented well in most of the programs, and make the experience much more satisfying than reading the joke sections in a magazine.

The humor on these discs appeals to a wide variety of tastes. While one title offers jokes that might have been heard

back in '50s or '60s nightclub acts (complete with rim shot), another contains humor based on the events of 1993. And like comics' routines in nightclubs or on cable TV, some contain adult humor and visuals.

The Original Jokester

This duck walks into a drugstore and asks the pharmacist if he has any

Chap Stick.

"Sure," the pharmacist says.

"Will that be cash?"
"No." the duck replies.

"Just put it on my bill."

This is one of hundreds of jokes told in Time-Warner Interactive's Funny, the



A Million Laughs contains a searchable database of more than 150,000 lokes.

first comedy CD-ROM. It's told by "L.A. Law"s Susan Rattan, and she's joined by 83 other professional comedians and actors — like Peter Boyle, Melissa Gilbert, and Alan King — and just plain

Ronnie and Nancy go out to dinner at a seafood restaurant. The waiter asks Nancy what she'd like. "Surf 'n Turf," she replies. "And the vegetable?" the waiter asks.

"Oh, he'll have the special."

-Funny

folks whose images and voices have been captured and stored on disc. Fumny was the first multimedia comedy product (released for the Mac in early '93, with a Windows version arriving a few months ago), and its use of multimedia technology, choice, and variety of jokes make it one of the best.

Finny runs in two modes, selectable by clicking the mouse on the opening sereen. You can sit back and watch "Funny: The Movie," a collection of 90 brief comedy routines, or you can go for "Funny: Self-Service," and choose routines in the order you prefer. When you click on the Self-Service panel, you can choose from four initial classifications. Subjects include topics like Doctor's Office, Matrimony, Beligion, and Celibacy; click on one to bring up a short video clip of someone telling a

A gay walks into a psychiatrist's office, repeating over and over to himself, "I'm a wlgwam. I'm a teepee. I'm a wlgwam.

I'm a teepee." The psychiatrist, having observed this for a minate or two, says, "Relax!

You's two tental"

-Fanny

related joke. The Tellers' panel puts jokes in categories such as age of the teller, setting of the joke, and some nonsensical classes like joke-tellers whose socks are showing. Genres separates jokes by classifications like Poetry, Truly Tasteless, and Sight Gags. And Ratings

> divides routines into G, PG, PG-13, PG-65, R, and X.

As is obvious by the R and X ratings, some of Funny's jokes — and visuals — are definitely geared towards adults. There's no built-in safeguard to keep unsupervised children out, though a line on the opening screen warns, "This film tains something to offend all think-

opening screen warns, "This film contains something to offend all thinking, feeling life forms. Please exit if you can't take a joke."

The program's interface gives little cause for confusion. Video clips begin running when you click on the desired panel. All other navigational needs are met by icons placed along the edge of the screen. And if you move the mouse when running "Funny: The Movie," a control panel appears, allowing you to fast-forward, jump to another joke, and adjust the sound. Funny's humor tends more toward the hip than slapstick. It's an eclectic assortment of humorous anecdotes, aimed at a variety of ages and tastes, and covering an impressive span of topics. It offers up the kind of comedy you see being performed by today's best comedians, with a focus on the humor found in everyday situations.

Well-known comedians like Richard Lewis expound on the joys of family life in it's All Balathus



Family Funnies

Time-Warner followed up on Funny's success with It's All Relative, courtesy of Comedy Central's Short Attention Span Theater. As may be obvious from the title, It's All Relative finds the humor common in family situations. And while some of the humor is more

"I heard somebody say
'Never kick a man when he's down.'
Can you tell me a better time
to kick a man?

Your foot is that much closer to his butt!"

— George Wallace, It's All Relative

appropriate for adult ears, it's better suited to a wider age range than Funny. Tellers reminisce about Dad taking them to yard sales. About going shopping with Grandma. About a mother who has Call Waiting, but doesn't know how to use it.

Navigation is just as easy as it is in Funny. As you move the pointer around the opening screen, one of 20 different topics - like Husbands and Wives. Grandparents, Dysfunctional, Moms, Kids, and Discipline - pops up, next to a picture of a comedian (the likes of Lance Crouther Richard Lewis Adam

and were taken from performances done in front of live audiences, not put together in a studio. And, as in Funny, it's easy to save your favorite routines and build a screen saver from them

It's All Relative succeeds because its topics - literally - hit close to home. You'd be hard-pressed not to find

> something vou've experienced yourself. and you'll likely get a kick out of others' family antice Dating and

Mating, the latest title in Time Warner's Comedy Central line, is structurally identical to It's All Relative. It covers topics such as

Ex's, Pick-Up,

Sex, Couples, Fights, Marriage, and Break Up, and content is definitely geared for adult audiences. You'll laugh "I was married for 21 years .

in dog uears. That's who our dog was so upset when we broke up."

- Jackson Perdue Dating and Mating



Comedian Deborah Swisher dishes out the dirt in Dating and Mating, the most recent Comedy Central title from Time Warner.

Sandler, and others). Click when you find what you want, and up pops a menu displaying comedians and their comedy subtopics. Click on one to run the clip. An index lists comedians alphabetically, so you can make your selections by name rather than topic.

You don't get a complete standup routine in either It's All Relative or Funny, Most clips run a few minutes.

Coming Soon...to a CD-ROM Near You

And now for something completely different...how about multimedia Monty Python? 7th Level, the company that debuted with the critically acclaimed Tuneland, has announced Monty Python's Flying Circuses Interactive CD-ROM Thingie (Vol. 27).

Veteran Pythoners Terry Gilliam and Terry Jones have been quite instrumental in the design, whose details are, at this writing, still a secret. It's expected, though, to be comprised of many favorite Python sketches (including some never-before-seen material), as well as some game play. According to 7th Level, a new proprietary technology involving video action and animation will be used. Look for the new title sometime this summer.

SENATOR ROR PACKWOOD OF OREGON WAS SAID TO BE THINKING ABOUT RESIGNING SO HE WOULDN'T HAVE TO REVEAL

HIS PERSONAL DIARIES. LAUFSS THIS DROVES PACKWOOD'S PEN IS MIGHTIER THAN HIS SWORD HUH?"

> - DENNIS MILLER'S THAT'S NEWS TO ME

out loud as you recall some funny moments from your own love life.

The only drawback with these humor-filled titles is that the comedy ends for too soon

Jokes by the Truck Load

What Interactive Publishing's A Million Laughs lacks in its use of multimedia technology, it makes up in sheer volume of material. Over 150,000 jokes are included in this title, wrapped up in a book-like user interface whose search engine helps you locate a joke in any of its hundreds of categories. Unlike Funny and It's All Relative, there's no fullmotion video, and no famous performers offer up the humor. But it's a good interactive reference work, designed not so much to entertain as to provide material to would-be entertainers.

The program's table of contents on the opening screen lists the type of jokes available (jokes, riddles, puns, quotes, limericks, one-liners, insults, and toasts) as well as a scrolling, paginated list of categories, ranging from Aardyarks to Mailmen to Zoos. Click on one, and the book-page graphic opens to reveal jokes in that class. You can even do complex Boolean searches to find jokes with specified common denominators - for example, all jokes related both to grapefruits and to heads

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Dennis Miller's That's News to Me covers more than 200 topics from 1993, with jokes on everything from Burt and Loni's break-up to the World Trade Center bombing.

Though most of A Million Laughi; jokes are silent, the program does use sound. Click on the Sound Effects icon, and page through dozens of effects, from whip cracks, comedy zips and streaks, applause and boos, and buzzing bees to some less-mentionable sounds. (The program's manual claims that the disc is rated R, and is meant to be offensive to everyone.) And if you enter the Comedy Club, you'll see an animated comedian telling the jokes you choose.

A Million Laughs' jokes aren't as fresh — and in many cases, as funny as those in Time Warner Interactive's titles, but the reasonable street price of this disc might make it a good reference tool for someone needing a lotta jokes.

Miller Madness

He's Dennis Miller, and that's news to him. The other news is that he's now on CD-ROM. Dennis Miller's That's "And It's official — Michael Jackson and George Hamilton have now crossed lines on the pigmentation flowchart."

— Dennis Miller's That's News to Me

Neus To Me is the first of three titles that comedian Dennis Miller will produce in conjunction with Sanctuary Woods for the company's I-Laugh line. You get more

than 206 digital video clips of Miller's acerbic wit as he examines the issues of 1993 and gives them a humorous twist. Pick from four topics politics, world events, sports, and show business — select a month, and Miller delivers his "punchlines behind the headlines."

And his delivery is just as irreverent and topical as it was for years on Saturday Night Live. For example, speaking on world news, Miller says, "Representative Dan Rostenkowski is being investigated for possible money laundering, fraud, and obstruction of justice. Washington D.C. is the only place where those charges aren't a felony, but a career move."

The follow-up Miller title from
Sanctuary Woods will be Dennis Miller's
That's Geek To Me, a computer glossary
for the technologically challenged.

Kathy Yakal is a California-based freelance writer who has been covering the personal-computer industry since 1983. She laughs freely and often.

Info

Funny (Windows or Mac, \$39.99)
It's All Relative (Windows or Mac, \$49.99)
Dating and Mating (Windows or Mac, \$49.99)
Time Warner Interactive Group
2210 Dive Ave.
Burbank, CA 91506
(818) 955-9999

A Million Laughs (Windows/Mac, \$39.95) Interactive Publishing Corporation 300 Airport Executive Park Spring Valley, NY 10977 (914) 426-0400 Dennis Miller's That's News To Me (Windows/Mac, \$29.95) Sanctuary Woods 1875 S. Grant St., Suite 260 Sans Msteo, CA 94402

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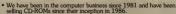
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REVIEWS

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IN I SO I DO I DI

PI deserves a strong nod for delivering the first multimedia disc on Native Americans. Touring Indian Country is a handsome effort, but it's important to understand what this disc contains -- and what it does not -before you make a purchase. It is not a historical study of Native Americans, nor



A nice addition to the program: Indian terms for months of the year.



Where do most Native Americans live? This list shows the last two census results.



information is available for each month.

Touring Indian Country

Windows

MPI Multimedia 5525 W. 159th St., Oak Forest, IL 60452 Phone: (800) 777-2223

does it explore Indian culture in any great depth. What Touring Indian Country does well is to show where existing tribes are located, as well as when and where regularly scheduled The heart of the program is the Tribes section. Here you can locate tribes by name, region, state, or related (follower) tribe.



events (often called powwows) take place. There's also a variety of other information, some of it intriguing, but at times insubstantial.

Based on the book Indian America: The Glossary covers about 50 terms, a mixture of generic and special words, such as medicine man or Kachina.





A Traveler's Companion, Third Edition, written by Irish/Choctaw artist and writer Eagle/Walking Turtle, Touring Indian Country includes more than 300 existing tribes in the U.S. and features 140 photos and more than 60 video clips, Audio tracks feature Native American music, both instrumental and vocal, and is one



Photos range from nineteenth-century archival sources to modern-day shots. You can enlarge any photo by clicking it. of the program's strengths.

Navigation from the main screen is easily managed, and it's from here that you access everything on the disc. The Glossary offers a definition of about 50 terms, a mixture of common words and special terms (e.g., sweat lodge, Kachina, moccasin, bead work, medicine man, ghost dance, metate, and ceremony). The Population icon reveals the number of Native Americans in each state from the 1980 and 1990 censuses

Calendar of Events offers an extensive list of gatherings, festivals, and meetings across the country.

The most unusual branch of the program is Indian Moons. Here you select a month (or moon) to see how it was historically named by a variety of tribes. For example, the Omaha called January "Moon When the Snow Drifts into the Tipis": March, to the Sioux, was "When Buffalo Cows Drop Their Calves"; the Winnebago tribe called July "Corn-Popping Moon"; and "Moon When the Water Is Black with Leaves" was the Creek name for November. In the scope of what else is found in this

program, Indian Moons is a curious but fascinating inclusion.

The meat of Touring Indian Country is in the Tribes section. By selecting a region, you can either read a brief history of the native tribes (right mouse button) or move directly into tribe information (left button). Choose a tribe and you'll see either a video clip, photograph, or state map with the tribe's current location highlighted. Photos are often archival late nineteenth-century or early twentieth-century portrait shots. Video clips, sometimes accompanied by an audio track, vary widely in subject matter.

Information on the tribes can be substantial or sparse. On one hand, you can read a 300-word history of a tribe. complemented by fascinating cultural details. At the other extreme, you'll find a short, descriptive phrase, A subsection in Tribes offers information about the current location of the tribe, an address and phone for the reservation, art forms, powwows, and visitor info.

The value of this disc depends entirely on your interest. Touring Indian Country is not a comprehensive work. nor is it a scholarly source. It's light on history and culture — but offers good value for the casual reader or middleschool/high-school student. For those wishing to visit tribal reservations, it's an excellent product, packed with "where" and "when" information.

Although Touring Indian Country is at times an uneven mixture, it's a product we conditionally recommend. Should a future edition be released, our wish is that MPI offer less breadth, more depth, and a more singular focus.

- Lance Elko



ABOUT OUR REVIEWS

All reviews in CD-ROM Today are rated with an easy-to-understand five-point system:



Note that ratings vary by category. Reference reviews include a Depth of Information rating; the Entertainment category includes Entertainment Value: and Education reviews contain a Learning Value rating. Each of these categories also feature three common criteria: Interface, Visuals (graphics, animation, and/or video), and Audio (sound, music, and/or narration). Ratings for Applications include Interface Fase of Use Performance and Range of Features; and reviews in the Resources category receive marks for Variety of Content, Interface, and Usefulness,

All reviews are given an Overall rating based on a weighting of all rating components, with consideration also given to the general value of the product reviewed. Overall grades are not necessarily derived mathematically from the sum total of the other rating values.

Many of the titles covered in our Reviews section include an appearance on the Disc! Look for this graphic at the top of the review to see what's on the Disc! bundled with this issue.

Reethoven's 5th: A MultiMedia Symphony

Windows/Mac

\$59.95

Interactive Publishing 300 Amont Executive Park Spring Valley, NY 10977 Phone: (914) 426-0400

he opening notes of Beethoven's 5th Symphony in C minor are arguably the best-known eight notes in western classical music. Written long before Samuel Morse assigned three short notes and one long to represent the letter V. and almost 150 years before the pattern's association with the World War II slogan "V for Victory," the opening measures prepare the listener for a stirring journey from struggle to triumph.

Minericall linet mumanute) H = 41

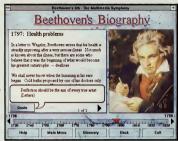
You get to see - and hear - plenty of instruments: but they're not playing Beethoven's Fifth.

Beethoven took four years of writing to travel from his challenging opening to the powerful finale. Though this CD-ROM includes a complete performance by the Zagreb Philharmonic conducted by Richard Edlinger, in the world of multimedia, it seems to traverse only half the route. I found the information offered incomplete, and the technical shortcomings of the software - pictures often pop up long after text - aggravating.

The opening screen offers six pathways into the program. Like the classical music series from Microsoft, the section labelled "Structure" allows one to move around the symphony, listening to the fourth movement's coda and then perhaps

shifting to a recapitulation in the first movement. The authors provide more detail in "Listening to the 5th." There are musical scores to follow, with highlights as the music plays, and the text holds more elaborate descriptions of Beethoven's techniques and favored instruments. I would

in rootless fashion, rather like the worst of California New Age speak, Paintings are not identified, and their connection



A handy timeline lets you move quickly to a specific year, but the biographical information could be more substantial.

have liked to follow the musical score throughout the performance. It can't be done

A section about the orchestra serves up a series of videos of musicians playing their instruments. Unfortunately, neither the text

describing the instruments, nor the musical segments seem to have any relation to Reethoven or the

5th symphony. The designers lost a tremendous opportunity here to give a sense of

Notation screens range from a single theme unity to this CD-ROM. line to multi-lavered.

I found myself longing for more information and anecdotes in the biographical section. We are told that the players and conductor in London laughed when they first performed the symphony a year after its 1808 debut in Vienna. I would have liked to know why. Instead the designers spent time assembling a series of quotations which pop up with the text isn't always clear. One pleasing feature is the inclusion of a timeline, allowing swift movement to specific time periods.

A series of musical games played at varying levels of expertise, and a CD Player button, round out the initial

screen. There's a istening to the print function and a glossary, which would benefit from fewer words and more musical examples. The authors have

gone to some trouble to design

an easily accessible (but slow) program, which is visually appealing. Lost in the shuffle was a depth of understanding.

- Anne Gregor





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Product Information Number 205

RE A RESCONDER PION

Comic Rook Confidential

Mac

\$49.95

The Voyager Company One Bridge St., Irvington, NY 10553 Phone: (800) 446-2001

on Mann's 1988 documentary film Comic Book Confidential was a labor of love. A dynamic overview of comic-book history. Mann took pains to preserve the In the beginning, there is flavor and

Superman. And he is energy of his popular...

subject. He even utilized the "filmograph" process, which gives static artwork an animated feel. This

required shooting on both 16mm and 35mm film, but Mann didn't care. He wanted to get it right.

Voyager also gets it right with its adaptation of Mann's film. The Comic

Comics go to war,

propaganda blazing Book Confidential disc brings you the entire 90minute movie, plus some 120 pages of comic-book stories. There's also background info on the masters

of this vibrant art form. Despite some execution Do comics rot young minds? The Senate wants to know flaws, I

can't imagine a CD-ROM detailing the evolution of comics any better.

Much of that credit, of course,

belongs to the filmmaker. In a brief interview found on the disc. Mann claims he



didn't intend for his movie to be definitive, but it must be Marvel's new breed: (if only by default). He talks to 22 great human problems

super heroes with

innovators, like Jack Kirby Jarguably comics' top

I FIGUR WORTH!

illustrator). Harvey Kurtzman (inventor of

Mad) Stan Lee (engineer of Marvel's psychological realism), and Robert Crumb (grand avatar of underground comics).

The film also traces comic-book Batman returns as the Dark trends. We

Knight, to a hero's welcome relive the rise of the superhero, the patriotic propaganda of the war years, and the sterilizing effect of the 1950's Comics Code controversy. And when the '60s comics spark a new age of

experimentation still in progress (both above and below ground), we are there.

Technically, the film looks OK, although the standard QuickTime limitations apply. Voyager showcases the small window as a movie screen. and the win-

dow can also be enlarged (accompanied by the usual resolution loss).

The supplemental comics are beautifully displayed. Since comic pages are vertical in

nature while monitor screens are horizontal, Comic Book Confidential compensates by letting you enlarge individual pages. Then you scroll down section by section as you read. This simple solution works.

One story represents each profiled artist. The

publishers

story choices are solid, al-

though die-hard comic fans might debate the selections.

A probable complaint will involve Underground comics hit the streets, outrunning local authorities and mainstream

the relative evelucion of DC Com-

ics. This, however, actually makes sense. Granted. DC launched the world's bestknown comic book characters (i.e., Superman, Batman), but the publishing

powerhouse isn't known for stretching

the medium like other mayericks. DC was probably ignored because Comic Book Confidential is

about creativity, not circulation figures. Something everyone can agree on, unfortunately, is the shoddy state of the

1992 Pulitzer Prize

Art Spiegelman's Maus Biographies sec-is awarded a special tion. Text is carelessly

flopped on top of photos, sliced in half at the bottom of page screens, oddly

hyphenated in mid-sentence, etc. These missteps certainly don't ruin Comic Book Confidential, but they prevent it from reaching perfection. Which it very nearly does.

- Phill Powell

Depth of Information: Visuals: **66666** Overall: 🗞 🎨 🗞 🗞

"The VW Bug is now a Mercedes with oll the options."

"Winner: Adventure Game of the Year."

become as much a classic os the original."

"Pumped-up saftware ... radical transformations."

"Return to Zork apens nastalaically. and then things start to run and iump and shout and sing."

"Winner: CD-ROM Game of the Year."

of such unparalleled quality that it must became the madel far all tamarraw's designers."

"... the best use af full-matian video in

any CD-ROM game ... Yau're not watching a mavie. You're in the movie."

"A beoutiful, engrassing game ... with a ground-breaking interface."

"Return to Zark leapfrags far beyond the shoulders of its oncestors and lands

"Winner: Adventure Game of the Year."

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Product Information Number 185

Lovejoy's **College Counselor**

Windows

\$79

InterMedia Interactive Software 3624 Market St., Ste. 302, Philadelphia, PA 19104 Phone: (215) 387-0448

eciding on a college or university is about the most stressful event you face...until deciding on a job, anyway. But Lovejov's College Counselor makes the painful narrowing down of choices as entertaining as possible.

Adapted from the 22nd edition of Lovejoy's College Guide, College Counselor gives at-a-glance information on 1,600

cost, and student life. In some cases, you can even get a preview of the campus there are some 1,000 photographs of selected schools. There are occasional video clips as well - these, obviously taken from recruitment videos, are more likely to keep you away from a college than entice you into attending. Pretty geeky.

And speaking of geeky, the female college counselor that sits in one corner of the screen is practically useless. Although

Submit Savo Lead Characteristics

The most unique feature of Lovejoy is its College Search Application, which instantly narrows down choices according to criteria you specify.

would have been better spent on more schools or additional information.

> The only other real criticism of Lovejoy is that a lot of its information is already obsolete. Schools have lost some affiliations and gained others. and the informa-

tion on future prospects of more

than 120 careers seems particularly outdated. The program just isn't able to keep up with the ever-changing economy and job market. On the plus side is a search utility

and index that enables you to look for schools with specific sports, academic programs, and extracurricular activities as well, of course, as specific institutions. But the best feature in Lovejoy is the College Search Application. This utility lets you use any criteria you wish as a yardstick for selecting schools, ranging from fraternities and marine-biology programs to student-teacher ratios and percentage of minority students. The search application begins with the entire data bank of schools, and you weed out the choices with each selection you make. This operation might result in schools that have never been considered becoming top contenders. Oh, yeah - it's fun to play around with, too.

Lovejoy's College Counselor isn't much help for a student who has already narrowed down his or her choices to just



You can use either the search utility or the index to explore information on schools and other topics.

a few, but for others it's a great - and fairly enjoyable - way to whittle down the vast selection.

Leslie Mizell





You can get snapshot views of dozens of schools, and short video clips of others.

four-year colleges and 4,000 technical and trade business schools. The institutions are all located in the U.S. (except for American University in London); you can subdivide the choices by state or region. It would have been interesting to include more out-of-country schools; finding out if you make the grade at Cambridge or Salamanca University might expand some teenagers' horizons.

Once you've selected a school, you can read about its size, academic opportunities, admissions policies, financialaid programs, freshman-class profile,

CNN Time Capsule: 100 Defining Moments of the Year

Windows/Mac

\$29.95

Vicarious Entertainment 2221 Broadway, Ste. 205. Redwood City, CA 94063 Phone: (415) 261-1900

ost of us think of a time capsule as a tube buried six feet deep containing newspaper clippings, photographs.



Tragedy near Waco moments in time: on CD-ROM.

CNN Time Capsule: 100 Defining Moments of the Year is a video reference that chronicles the notable events of 1993. The first of a collector's series, the disc has more than 90 minutes of video

Sports, Business, and Living, If you don't choose a category, the disc automatically plays the events in order of importance as determined by CNN, A complete list of events is conveniently located in the manual, and you can skip to a specific event using the video slider bar on your screen.

All the important moments of 1993 are here: the Mideast peace accord, the World Trade Center bombing, the war in Bosnia, the tragedy near Waco, Texas,

Several events I cover more than one story, "Mass Shootings" includes the



by postal workers, the Long Island subway killings, and the shooting spree in an L.A. office building. But don't be fooled by the serious tone. The Living category offers plenty of juicy topics; the Bobbitt trial, Joey Buttafuoco's sex life,

stones" and "Goodbyes" sections.

There is one limitation to the disc: the information is confined to the 100 events chosen by CNN. This makes the categories lopsided - Sports contains only eight entries and Business only six. There isn't a lot of background information or context provided. Also, some might question CNN's choice for the number one defining moment of the vear (the Waco tragedy). But these are only minor complaints. Presentation on

top-notch. The interface is nicely designed and easy to



use, the summaries are well-written, and video and audio quality is exceptional.

As you watch CNN Time Cansule. you remember how you felt and what was happening in your life during those 100 meaningful events. You hear David

CNN's interface icans: 1993 is a click away

CNN staff.

of the peo-

ple involv-

ed and nar-

CNN Head-

anchor Don

line News

ration by











footage produced and edited by the

of news coverage while you hear voices

Harrison. You can read a text summary

of each event, use the find function to

search for certain people and events.

and mark events for future reference.

gories: National News, World News,

Events are broken up into five cate-

-Year Flood

Each event shows 30 to 60 seconds

Top Events

Michael Jackson's alleged child molestation, Woody and Mia's break-up.

The disc contains a Year in Review documentary, an enjoyable package of 1993 trends and stats. Video clips covering everything from hairstyles to TV show censorship are set to music and combined with some nifty graphic effects. The footage also has stats about the price of milk, gas, and stamps, plus the average work-

er's salary and price of a house. Other nice touches on the disc are the "Mile-



Koresh talk about the ultimate sacrifice, vou see Israeli prime minister Vitzhak

Rabin and PLO chairman Yasser Arafat shake hands. It makes this



disc so much Michael's woes better than a time capsule buried in the schoolvard.

-Lisa M. Howie



81 CD-ROM Today

Distant Suns 2.0

Mac/Windows \$79.95

Virtual Reality Laboratories 2341 Ganador Ct., San Luis Obispo, CA 93401 Phone: (805) 545-8515

T ake a comprehensive sky-charting program, add 16 million stars, 37 movies and more than 1500 images, and you have a very ambitious multimedia package.

At its core is an easy-to-use skyplotting program that shows the stars, sun, moon, planets, and 2000 deepspace objects as seen from any time and place within the solar system. The charts are beautiful, and the planets are amaz-

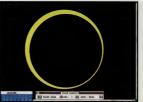


The southern sky as seen from Denver at 10 p.m. on August 12 with stars, two plantes, constellation names and outlines, and "Messier Objects" that are popular with amateur observers. Click on any object for a pop-up window packed with useful data.

ing rotating 3-D wire-frame globes. Add coordinate lines and constellation boundaries, or view the entire solar system from a distance. It's all a lot of fun.

Among many extras are charts of moon phases, a moon map, tables of rising and setting times, an observer's planning guide, and original new-age music that accents many actions and graphics.

The movies are mostly old Apollo and Voyager clips, some with sound, but all tiny and grainy. The 1500 mediumresolution images cover astronomy from



Investigate solar and lunar eclipses. This is how the annular solar eclipse of May 10, 1994, appeared from Detroit at 1:13 p.m. (1:21 p.m. according to Distant Suns). The clock control animates the event.

asteroids to Venus, but there are no descriptions or index. It's nice to click on a deep-space object and see a picture of it, but for the most part the images (especially the movies) seem to be an afterthought to fill the disc.

A compressed 200-megabyte version of the Guide Star Catalog (used to point the Hubble Space Telescope) uses disc space more luctively. It lets you view and print

productively. It lets you view and print incredibly detailed charts that show all the stars visible in a good amateur telescope.

The program has its share of bugs, and the menus are oddly organized. The accuracy is acceptable for personal plan-



Distant Suns generates truly impressive star charts like this one of the Pleiades Star Cluster.

ning for the near future but inadequate for research or publication. Numerous glaring errors in spelling and grammar suggest that the text was never proofread, and I do not under-



stand why the author cannot or will not capitalize planet, star, and constellation names. These faults are disappointing in such an ambitious program, and make it difficult to use it professionally or to trust the data.

Distant Suns has enormous depth and potential, and only its medium precision and idiosyncrasies prevent it from being a first-class product.

- John Mosley



MindQuest: **Medieval France**



Windows

\$79.95

Blue Mountain Software P.O. Box 1648 Port Angeles, WA 98362 Phone: (206) 457-0024

have to admit, this is the kind of CD-ROM I like. What MindOuest: Medieval France allows me to do is take an extended tour of European architecture of the Middle Ages, satisfying my curiosity and enhancing my knowledge all at the same time. Against the backdrop of a soundtrack of medieval string music (albeit too limited a selection), I can roam around the countryside, visit not only France but surrounding countries as well, and explore any site in as

much detail as I like.

For obvious historical reasons, the package shows more cathedrals, abbeys, and other religious monuments than any



the menu bar changes. depending on what you're viewing, allowing you to

other kind of

And you don't

Although the title is Medieval France, there's plenty of material about other explore the countries such as this 11thcentury English structure. surrounding region or to get a tour of the building.

The disc contains video tours, but they're not especially useful. Much better are the hypertext-based maps of the regions which let you choose precisely



glory of Gothic architecture. The text at the right scrolls as you move from site to site. where you want to go. If you prefer, a Grand Tour will guide you throughout the sites, but if you go that route you'd

be better off renting a video. All in all, Medieval France is a solid product, informative and tasteful.

Neil Randall



The Exotic Garden

Windows

\$49.95

VT Productions P.O. Box 339, Soquel, CA 95073 Phone: (408) 464-1552

he Exotic Garden is an easy-to-use and somewhat interesting guide to growing ornamental plants. But it's too bad it doesn't live up to its name.

With its minimal use of video, graphics, and sound, the program has more of a botany textbook feel than that of, say, the lush gardening books that bloom in profusion on bookstore shelves.

Though it fails to live up to its multimedia promise, the program is a

good reference and is extremely easy to navigate. A section titled "The Exotic Garden" nicely combines text with pictures to describe how to grow healthy plants. A separate "A-Z Guide" plots the growth requirements for individual



Swedish ivy: pinch tips for bushines

There's plenty of useful hands-on advice, such as details on proper pruning methods.

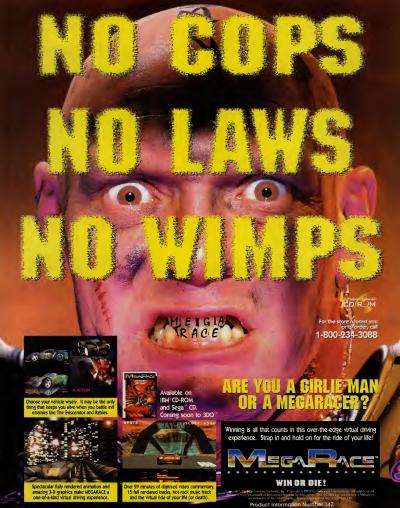
plants and includes more than 500 color photos by Charles Marden Fitch. You can search for a plant by its common or Latin name or by a number of variables such as ease of growth or plant type.

There's also a short, parrated timelapse film titled "Why Plants Flower." It's a curious element, serving apparently as a refresher course on pollination and how useful bees can be. But in an indoor garden?

The Exotic Garden's package equates the program to "taking a stroll through the world's premier tropical botanical garden with your own private botanist." Oh, that it were true.

- Betty Work





Dream Vacations Hawaiian Style

Windows

\$69

Advanced Software 4995 Hollow Rd., Logan. UT 84321 Phone: (801) 245-5012

ven if you're not planning a trip to Hawaii, you'll find this CD-ROM, packed with gorgeous photography, to be a pleasant diversion.

Dream Vacations Hawaiian Style's menu screen resembles a map of the islands. Added icons represent program features: a jet whisks you into serious travel planning, a lobster symbolizes a Polynesian recipe collection, and a parrot represents the colorful slang translated in the Local Terminology section.

Each larger island is treated individually with a narrated slideshow (which, unfortunately, sounds less than professional) and a comprehensive look at the



Waikiki's hustling, bustling nightlife is contrasted...

available vacation/recreation opportunities. Tiny Niihau and Kahoolawe are covered only through slideshows, and that's probably enough.



...with the gentle serenity of Molokai's sea cliffs.

The Events Calendar lists regular annual events and those occurring in 1994. If your Hawaiian jaunt is slated for this May, for instance, you could sample local cuisine at the Big Island Bounty Festival, or check out the Mauna Kea 200, an endurance motorcy-

Dream Vacations' only real problem is a casual disregard for the English language. The viewer will stumble upon a trove of misspellings and grammatical oddities. That's a shame, too, as it mars an otherwise nice package.

Otherwise, though, I only had one beef with Dream Vacations: not one picture of "Hawaii Five-O" 's Jack Lord.

Phill Powell



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Product Information Number 115

Ocean Life

Windows/Mac

\$49.95 each

Sumeria 329 Bryant St., Suite 3D, San Francisco, CA 94107 Phone: (415) 904-0880

If you like fish, you'll love Ocean Life.
This colorful series of discs is intended to be a kind of multimedia Petersen's Guide to the fishes and other cold-blooded vertebrates of the Pacific, illustrated with videos of every species.

Volume 1 covers the island chains of the southwestern Pacific, the eastern Solomons, the Fijis, Tonga, Vanuatu, and adjacent island chains. Included are QuickTime movies and basic text descriptions of about 50 common and rare marine species. The movies were taken with a Hi-8 camcorder in an underwater housing (by Jerry Borrell, president of Sumeria, for whom this project is clearly a labor of love), but they look remarkably like the footage you see on TV nature specials. The images are clear, the color is excellent, and an obvious effort has been made to

in sophistication - and value over Volume 1. The interface is slicker and more usable, but the most obvious addition is sound: a soothing parrator reads the text over sea-watery mood music. This might seem like yet another case of excessive use of CD-ROM audio, but it's not; hearing the words synched to the QuickTime video clues you in to fishy activities that you might not notice on your own. And, because there are two discs in this volume, with some 80 species on each, there are lots more fish to see (not to mention eels. seasnakes, and rays).

Other welcome additions in Volume 2 are large, detailed relief, topographa and political maps that help you get a sense of just how remote (and remote from each other) these islands are. The topo maps are by far the most useful for divers and others actually planning trips to the Pacific. Also included is a visual essay on fish biology, habitat, and other marine matters. In future discs. I'd like to see a taxonomic tree

with links that take you directly to a family, genus, or species of interest. It might also be interesting to have more information on the finer points of underwater

videography.

Ocean Life is
just the sort of large,
specialized project
that CD-ROM was

made for. The degree

of evolution between volumes 1 and 2 is impressive, so future volumes should be stunners. It is definitely a must-have for marine biologists, divers, tropical fish



The main menu lets you choose a fish family to investigate, or you can explore the maps and other materials.



The family screen guides you to information about individual species.



Quicktime movies – some nearly a minute long – illustrate each species description.

to the blue Pacific.

enthusiasts, Jacques Cousteau fans, and

— Steven Anzovin

[Editor's note: Volume 3: Hawaiian Islands was released as we were going to press.]





Ocean Life's opening screen plays a marine montage reminiscent of a Jacques Cousteau special.

show fish in typical habitats and displaying characteristic behaviors.

The two-disc Volume 2 (Micronesia: Pohnpei to Belau) represents a big leap

Marvin Minsky -The Society of Mind



Mac

\$49.95

The Voyager Company 578 Broadway, Suite 406, New York, NY 10012 Phone: (212) 431-5199

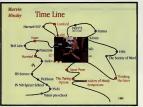
n the mid-1980s, artificial-intelligence pioneer Marvin Minsky wrote The Society of Mind, a delightful book about how the mind works. Now The Voyager Company has brought that book to life as one of its Macintosh "First Person" expanded books - multimedia treatments of existing printed books.

As an exploration of human intelligence, Minsky's premise is that the mind is a society composed of smaller components, or agents, that are essentially mindless. The book mirrors that metaphor - each page is a small topic, and all of them ultimately combine to form a coherent theory of the mind. (See the "MacInations" column in this issue for more on Minsky.)

The Society of Mind is an excellent choice for Voyager's multimedia treatment, allowing users to access the complete text Nestled along his own life's timeline, Minsky sits in a

articles by Minsky on related topics, audio-video presentations by Minsky (who pops up in brief OuickTime movie monologues), and a range of additional videos and illustrations that help to integrate the topic.

The value of this interactive book comes from the random-access nature of a CD-ROM itself. The ability to jump from one related topic to another adds a



of the book, a host of additional Quicktime window and talks about his experiences.

new aspect to Minsky's unique approach. For anyone interested in an innovative, interactive approach to how our minds work, this is a disc worth owning. - Selby Bateman



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FNTFRTAINMFNT

ith the staggering expansion of the CD-ROM market, a great number of companies are rushing to release CD versions of their more successful titles. Unfortunately, while this mad scramble is rapidly increasing the number of games on disc, these programs are very rarely more than a carbon copy of the original. Even so, every now and then a company steps forward and



The majestic King Richard is extremely troubled over Scotia's acquisition of the Mask, a ring that gives the wearer the power to change shape.

takes the time to use the CD format to its advantage. With the addition of some of the finest voice acting to ever appear in a computer game, Virgin's CD adaptation of its classic role-playing game Lands of Lore is a perfect example of

what CD-ROM technology can do for an already classic title.

For those of you not familiar with the original, Lands of Lore is the story of a kingdom at war with an evil sorceress who Scotia changes her hag-like face into one

has recently acquired that's a little more aesthetically pleasing. the power to destroy it. As a dashing young adventurer, you volunteer your services to defeat the sorceress, restore the kingdom, right wrongs, etc., etc. Though the basic plot is instantly recog-

Lands of Lore

DOS \$74.99

Virgin Interactive 18061 Fitch Ave., Irvine, CA 92714 Phone: (714) 833-8710

nizable as standard fantasy fare, the writing is not. As the game progresses, through the twists and turns of the fable, you feel the despair of certain defeat, the exhilaration of success, and the strength of companionship.

Combined with its unobtrusive interface, Lands of Lore's storytelling makes

> it dangerously easy to immerse vourself completely in the game. Movement and fighting con-

trols in Lands of Lore are simple. Very similar in design to SSI's Eve of the Beholder series or FTL's Dungeon Master. most action takes place from a first-person

Character movement is a snap to pick up, and can be controlled by clicking the mouse on arrow-

point-of-view.

head icons or by simply using the directional keys on the keyboard. The combat and magic interfaces are equally as intuitive, each with its own

> icon. Most players won't need but a few minutes of practice before they'll be whizzing through the carefully rendered realm, ready to fight or flee at a moment's notice.

Quickly taking advantage of the Mask, Although the images have not been

greatly enhanced from the original, Lands is still filled with incredible animation and artwork that's certainly worthy of a CD title. As you travel through the lands, brilliant background images



The castle sorceress Dawn confronts Scotia in a battle of magic. Nearby, the poisoned Kina Richard lies on the brink of death.

and detailed character portraits repeatedly breathe life into this fictional realm. The movie-like sequences that play between your adventures incorporate these same crisp images with the game's most outstanding new feature; sound.



Mustering all the power they can, the followers of King Richard place him under a protective spell.

The most impressive use of multimedia in changing this title was the addition of live actors and digitized sound effects. Westwood, the game's development group, packs hours of speech onto the disc, and all dialogue in the game is narrated. Unlike many games that tend to include a celebrity



The outdoor scenery is a good example of the quality artwork found throughout Lands of Lore.

A Guide to the World of Lands of Lore

Spells This magic scroll keeps track of all new spells you learn as you play.

Heal

After you acquire this item from a loyal follower of the king, it appears in the upper left corner of the screen. The compass always points in the direction you're facine.

Movement Arrows Each button corresponds to the equivalent keyboard arrow. Click on an icon to move your character one step in that

direction.

Magic Atlas

Stored in the king's private library, the Atlas is the first magic item you'll find. It gives you a full map of any areas you've explored, complete with the location of all secret doors and switches.

Rest

Click here and the whole party rests. Resting slowly restores your health and mana, but leaves you completely vulnerable to attack.

Inventory

This bar shows all items in your character's possession. As in most roleplaying games, you'll want to grab everything that's not nailed down.

Character Boxes

These contain the most important information in the game. To the left of each box is the character's portrait. The two small bars in the center keep track of the character's current stats; blue for mana, green for health. On the upper right is the fight icon that swings your currently-selected weapon. The bottom button casts the spell highlighted on the magic scroll.



Click on the character portrait to bring up the character sheet. This is where you'll access weapons and armor, keep track of experience, and use magic items. merely for hype,
Westwood's casting of
Patrick Stewart as the
stern King Richard seems
as carefully considered a
choice as in any theatrical
production. Perhaps even
more impressive than the
star are the sterling performances by the rest of the
crew. The total effect of

the acting is engrossing, carrying much the same impact as a good film or play. Even on floppy disk, Lands of Lore is one of the best games available for the PC. The addition of the almost-perfect voice acting makes the game a must-own for any role-playing fan. And owners of the original title will find that the powerful enhancements to the CD-ROM version will make this one worth playing all over again.

-Trent C. Ward



Myst



On the DISC!

injoy the intriguing and beautiful work

of Myst in this interactive dem

Windows and Mac)

Windows/Mac

\$55

Broderbund P.O. Box 6121, Novato, CA 94948 Phone: (415) 382-4400

yst has already achieved cult status among many Macintosh game players, and now the new Windows version appears destined for the same success with PC owners.

The CD-ROM game is a visual and aural delight, filled with gorgeous 3-D photorealistic images, haunting sound effects, and a moody, ethereal soundtrack. Myst is at first a total enigma, which begins to unfold its intricate secrets, clue upon clue, in a thoroughly engrossing manner. The atmosphere is dream-like, and the storyline — as it emerges — offers a level of suspense and intrigue generally reserved for the best mystery books and films.

Game designers Rand and Robyn Miller cut their teeth developing such Mac classics as The Manhole, Cosmic Osmo, and Spelunx and the Caves of Mr. Seudo. But as whimsically delightful and



As you explore, remember that everything in this world is important.



In this log cabin, you'll find a way to "heat up" the game.

inventive as those games are, they pale in comparison to this new master work.

To give away too much of the story and its puzzles would be criminal. Myst is a world in which the secrets you personally discover and the puzzles you solve on your own seem to add a special charm and satisfaction uncommon in most

In brief, then, and not giving too much away, Myst is the name of a book which is the entrance into a world. You are dropped into this Island, without a clue. As you discover, it is a world among other worlds. These unique, fascinating worlds, or Ages, have been created by a man named Atrus, who learned to invent them by writing special books that are themselves gateways.

But someone began destroying those books, and Atrus began to fear that it was one of his sons, Sirrus or Achenar.

Atrus, his wife Catherine, and their sons lived on Myst Island at one time.

WELCOME TO MYST...



You find a curious book titled Myst, and are suddenly plunged into blackness...



...and then to this lonely dock on the island world of Myst.



Do you have the power to launch this starship? The keys are inside.



Musical memory is a must when solving this keyboard puzzle.

But, as you begin to explore the beautiful,

craggy island onto which you've been placed, you find no one. Where are they? What is happening to the books?

Your task—and your delight—is to explore this world, and to uncover its many secrets. You must look and try everything. Turn levers and open doors, read the books and notes you find, view the videos. Virtually everything in Myst is either important or fascinating — or both.

Your movement through the game is very easy and accomplished, with a simple interface. A cursor arrow points the direction you're moving, and that arrow changes to an open hand when any item or device can be pushed, turned, or picked up. There is a special "zip mode," which lets you move rapidly through multiple scenes. But if you don't use it sparingly, you'll miss things.

The only warning about the Windows version of Myst is one common to
almost all multimedia entertainment software — there are hardware and software
technical problems that some users are
bound to encounter. Broderbund has
included a six-page troubleshooting guide
with procedures and resources listed to
solve the most common problems. As the
guide states: "Myst was tested thoroughly
before its release, and most of the technical problems we anticipate users having
will be rooted in device drivers for video
boards, sound boards, or CD-ROM
drives."

Despite that caveat, Myst on both the Mac and the PC is about as flawless a game as you're likely to find.

- Sandie and Selby Bateman

From Myst Island, you must find your way to other mysterious worlds, or Ages:



Channelwood Age...



Selenitic Age...



Stoneship Age...



...each with its own unique set of puzzles to find and solve.



Interplay's 10 Year Anthology: Classic Collection

no SRP

Interplay 17922 Fitch Ave., Irvine CA 92714 Phone: (714) 553-6678

n the volatile world of entertainment software, a ten-year anniversary is a real achievement. To celebrate its first decade in the computer gaming biz. Interplay has released Interplay's 10 Year Anthology: Classic Collection, a CD-ROM collection of ten of the titles that have contributed to Interplay's success.

The games run the gamut from old four-color text-and-graphics adventures to today's latest hits, and seeing the

Charge ter Name

RIAN THE FIST

incredible evolution of computer gaming over the tenvear period represented on the disc is a real treat. The nostalgia alone is almost worth Bard's Tale may not look as impressive as today's games, but it the price of the was one of the first to unite compackage, and a puters and role-playing games.

few of the very oldest titles are still remarkably enjoyable even after all these years.

And now, the List of Titles: First up. there's Mindshadow still a great game, and my personal favorite. With its low-res, halfscreen CGA stills and text, it's just a single

evolutionary step ahead of the text-only adventure games (Zork, The Hitchhiker's Guide to the Galaxy) that attracted so

many to computer gaming in the first place. Next there's Tass Times - again CGA graphics and text. but now sporting a rudimentary point-and-click interface. An OK game. One of the most famous titles in the anthology is Bard's Tale, arouably the most important computer role-playing game of all

time. Tens of thousands cut their role-playing game teeth on Bard. Two other early role-playing games, Wasteland and Dragon Wars, are also included. The last five titles are more recent, and probably better known. There's Battle Chess, which incorporated animated battle sequences to liven up

> the capture of each game piece: Lord of the Rings. the top-down roleplaying adventure

finance, build, and

defend your own

medieval fortress:



The latest in the collection, Out Of This World set new standards for smooth animation - and it's a great game to boot.

OR SHELUES. led with dusty, rare books

Tass Times is interesting in that it incorporated a rudimentary araphical interface into the old text-parser system.

finally, Out of This World, a great action game that garnered plenty of critical

> praise for its fluid animations

The bottom line: Interplay's 10 Year Anthology is more than just shovelware, although the games included have not been enhanced for CD-ROM. Not every title is an earthshaker, and none of them will live up to today's

the collection. The Lord of the Rings CD sound-and-graphics extravagance. If you're looking for cutting-edge stuff, pass

this one by. But if you want to relive -- or discover - the history of computer gaming, it's a collection worth having.

-Matthew A. Firme

One of the more recent games in brings top-down role-playing to J.R.R. Tolkien's classic work. based on Tolkien's works; Castles, which lets you

Mindshadow is just one step removed from the text-only adventures that started computer gaming. Notice those flashy 4-color graphics!

Star Trek: 25th Anniversary, a top-notch graphic adventure recently re-released in an enhanced CD-ROM version; and



ed by nudity.

religious

irreverence,

world for titles not

The Residents: Freak Show

Mac

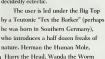
\$69.95

The Voyager Company 1 Bridge St., Irvington, NY 10533 Phone: (800) 443-2001

he Residents have been a fixture on the San Francisco performance art/rock scene for the last 22 years. Since its inception, the members of the group have remained anonymous, performing in outlandish costumes, like their trademark "giant eyeball wearing a tux and top hat." Their music and persona, like liver and onions, can best be

described as an acquired taste.

Freak Show teams the Residents up with award-winning computer animator (and fellow Bay Area resident) Jim Ludtke. The combination of the two makes for an interesting melange of music, art, videos, and onimation that is decidedly eclectic.





A visit to one of the troupe's trailers confirms that Harry the Head has been hitting the bottle once again.

Woman, Jelly Jack, Benny the Bump, and a computerized version of the Residents strut their stuff at your command. Another exhibit provides photographs and a narrated history of scores of the "real" world's most famous oddities.

After the show, it's a time for a behind-the-scenes peek into the lives of Freak Show's residents. Slip around the tent and through a gap in the fence, or ignore Tex's admonitions to heed the "No Admittance" sign in the tent, and you have free access to the troupe's private trailers.

> Each trailer contains a stand-alone eye on you. interactive vignette that tells the story behind the faces that appeared on stage. The tales unwind via videos, comic-strip type stories, and animated music videos. The "journey is the reward" is

the operative mode within Freak Show your only task is to explore and experience.

The Residents' trailer includes a complete discography, musical selections, eight music videos, and a sampling of Residents "collectibles" (T-shirts, posters, and jewelry). The latter does give one cause to wonder how any group that merchandises itself

via an 800 number can consider itself counterculture.

The Voyager Company is to be Herman commended for going out he Human on the marketing limb Mole's tragic with Freak Show It's reastory is told suring to know that there's room in the CD-ROM malist comic strip.

likely to appeal to the mass market. The visual quality and production values of Freak Show are impeccable, but the subject matter is decidedly dark and is not suitable for children If vou're likely to be offend-

Watch your back as you leave Freak Show. One of the Residents is likely to be keeping an strong lan-

occasional guage, and violence, you may wish to steer clear of

these otherwise friendly freaks. On the other hand, if you're already a fan of the Residents, an admirer of well-executed computer art, or simply a

In a nod to redeeming social importance, Freak Show contains a "Who's Who" of celebrated oddities, including to to the Dog Faced Boy.

curious open-minded soul, take a peek under Freak Show's tent.

- Arlan Levitan



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Soft Kill

Windows/Mac

\$39.95

Xiphias 8758 Venice Blvd., Los Angeles, CA 90034 Phone: (310) 841-2790

his is a strange one, folks. So strange, in fact, that I played with it for about three hours before completely figuring out what the point was. I was enjoying myself, but I didn't seem to be actually doing anything.

Take a look at the screens to see what I mean. Screen 1 is what you see when you first fire up the program. This is Xiphias' Matrix system, and it's designed to let you choose where to start the story.



1. The opening screen, from which you can select your scene.

Pictured here is the Author option, which sets the scenes in order as the author designed them. You can randomize the scenes if you like, or select a path yourself.

Huh? Any order you want? So is this a completely non-linear game?

No. Soft Kill is just what its packag-



2. Before each scene, select a main character to watch the story unfold.



3. Info screens enhance the scene's backaround, and can be saved as a text file or printed out.

ing claims — a unique techno-thriller that explores the possibility of a world power using non-lethal warfare to bring the U.S. to its knees. I was expecting to play a game. What I got, instead, was a choose-vour-own-path movie.

But I didn't know that for a while. Instead, I chose a scene and tried to interact with it. Screen 2 offers three characters. I thought I could click on one and see his specific sequence. Nope. All this is doing is introducing me to the characters in the scene. So onwards. After some of the initial scenes, I clicked the Info button. I got Screen 3, which gave me more info. I could print it or save it as a text file, or I could return to the scene. No real interaction, though.

Forging ahead, Ah. the president (Screen 4). I'd already determined that the speech and sound were excellent, but the prez's voice was especially well acted. The Clintonsounding voice was clearly tired, clearly a bit slangy. clearly authoritative. Nice job. While he was speak-5. Two technicians discuss the ing, a video was running in situation, but... the top right corner, Good use of multimedia. Hmmm....

Another route. I went back to the Matrix screen and moved into a later sequence using the Point-of-View option. A few scenes later, I was looking at Screen 5 - a couple of technicians, a video sequence in the top left corner showing other events. Again, nicely done, but what was happening?

It was at that point I decided to stop playing Soft Kill and simply experience it. That's when it sunk in. This is a kind of laser disc experience on CD-ROM, a story told with still images, speech and sound, and video sequences. Soft Kill is like a laser disc because you can change the order of scenes, but the bottom line



4. Mr. President addresses his visitor in a distinct Arkansas-like drawl.

is that you're watching a narrative with a

rigid progression.

It's experimental and interesting. And it offers a good, well-acted story. But CD-ROM prices will have to tumble magnificently for this kind of thing to catch on, because renting a video is far, far cheaper. And as long as I'm not having to make a lot of choices, it's also more enjoyable.

-Neil Randall



The Honeymooners' Funniest Moments

Windows/Mac

MPI Multimedia 5525 W. 159th St., Oak Forest IL 60452 Phone: (800) 777-2223

hy should "The Honeymooners" be immortalized on CD-ROM? The classic '50s sitcom set new benchmarks for television comedy, with an inventive ensemble cast. Furthermore. "The Honeymooners" presented working-poor characters in dingy surroundings (a revolution in realism when compared to the squeaky-clean suburbanites of most '50s sitcoms). Ultimately, though, what made the show great was Jackie Gleason, a larger-than-life talent.

these are small and infrequent distrac-

Baby, you're the areatest"...and the sharp retrodesign of the interface gin't bad, either,

The Honeymooners' Funniest Moments combines 48 black-and-white clips. Each subject category (Marriage, Schtick, Ralph & Ed, and Schemes) contains 12 clips, represented on the menu screen in small windows. Minor complaint: Although a click calls up an info box dedicated to each clip (i.e., the episode's title, air date, and subject), we need a short phrase labeling each clip on the menu screen. Then favorites could be quickly and conveniently re-accessed. Currently, the only other way to identify a scene is by the tiny still image in the window, which may or may not suggest the clip's content.

The video quality is surprisingly strong, especially considering the rocky road this 40-year-old footage has trav-

eled. It began as live video captured on film (remember, this was the pre-videotape era). These kinescopes were eventually converted to video tape, then turned into video files. Even after all this translation. the picture is unwaveringly clear. Occasionally, a scan line or two strays onto screen, but



First he simmers, then he boils: Jackie Gleason rants a the volatile Ralph Kramden.

tions. Some may find the modest display window limiting, but I don't find its size to be a problem. Furthermore, the clips run smoothly, even on slower systems, and the sound is clean and undistorted, probably about as good as it could be.

The selections amply demonstrate what made "The Honeymooners" so popular. One

hilarious bit has Ed Norton entering the Kramdens' empty flat and helping himself to milk and cookies. He then covers his tracks by adding water to the depleted milk bottle and shaking up the mix. Skim milk, Ed Norton style.

Other clips feature a Raccoon Club sing-along, "making up" scenes between Ralph and Alice (punctuated with Gleason's "Baby, you're the greatest!"), and umpteen versions of Ralph blowing his stack. Whether bellowing at Alice, blasting Ed, or venting his general frustration with the world, nobody got madder better than The Great One.

As a bonus, Funniest Moments offers magazine articles on Gleason and analysis: "For Ralph, Norton is an object of friendly contempt, sexual solidarity. and intermittent male rivalry, while Alice is a Kali-like being eliciting fear and hatred as well as veneration," Sure,)

company. A "Film Comment" reprint

amusingly applies a psycho-sociological

The joy in watching The Honeymooners' Funniest Moments is seeing

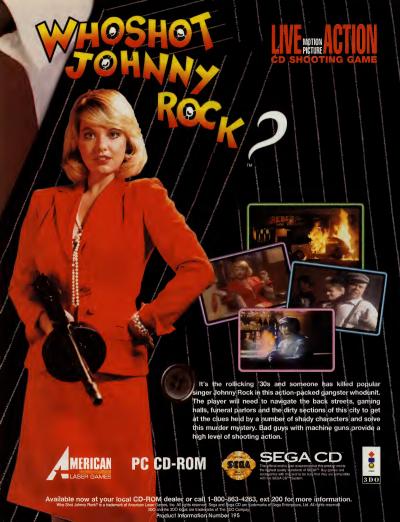


Is this Ralph's new bus-driver uniform? Read the clickable text and find out when and why he wore it.

well-drawn characters collide within a pressurized environment. Whether or not these are the show's funniest moments (that's saving quite a bit), they make up a multimedia product you gotta see.

- Phill Powell





No. 11 **Downing Street**

Windows

\$69.95

Silicon Alley 1850 Union St., Suite 1511. San Francisco, CA 94123 Phone: (415) 921-0409

. O. 11 Downing Street is a most confusing experience. The cover art of this interactive story's heroine Norbertina the Cow, aka Ninja Nanny, is rather more childish than childlike. So far, not so good. Open the box and you'll find an interesting essay on reinventing the novel for multimedia. Things start looking up. After loading a reasonable

AVI files, dialogue of extremely variable quality, music, and sound effects. It aims for a Monty Pythonish eccentricity but, while achieving a com-



parable nonlinear- Spinster Ensign loan Higgleby of the

tery story quite lacks that classic program's anarchically sharp teeth. Also, Python, although certifiably British in its lunacy, was of universal appeal; Ninia Nanny, on the other hand, is far too parochial. You need a thorough acquaintance of the San Francisco Bay area and

> its denizens to get some of the in-jokish humor to say it is without its own certain pleasures. DictoPedia Ninjaeclectic mix of miniencyclopedia entries And the old-time

on this disc. This is not The wonderfully named Nannica is an enjoyably that you can consult by clicking on "hot words."

engravings make for some delightful illustrations to the meandering plotline.

Ninety historical video clips are included in the DictoPedia, showing everything from marathon dancing to car racing, but it's sometimes difficult to tell the horse from the cart, as it were. Are

these filmlets somehow related, however tenuously, to a necessary extension of the plot, or has the story merely been padded in places to incorporate the available footage? Too often, I suspect the latter.

ity, this little mys- Salvation Army wants a word with you... few of the supporting cast you'll meet along the way. And they'll all want to chat with you. Unfortunately Norbertina, the mischievous cow, and Sherrloch Sheltie, the wannabe sleuth,

The peripheral char-

acters are really quite

engaging. Ensign Iona

Higgleby of the Salvation

Army, Sir Fabius Corpus.

Charleston the dancing

hippo, Emperor Norton

XXXIII, and the thieving

Noel Khyro are only a



The Dictopedia NinjaNannica offers enliahtening digressions from the sometimes pedestrian plot.

lack the necessary color to carry the "mystery" story in which they play the starring roles.

If this review seems equivocally iffy, it's because No. 11 Downing Street left me poised somewhere between a laugh and a groan, between interest and irritation, and between raised hopes and dashed expectations. I do hope that Silicon Alley - and other designer/producers, for that matter - stick with it and continue to explore and exploit the multimedia possibilities for interactive stories. No. 11 Downing Street is definitely on the right track, but it simply never takes off high enough to really call it a flying start.

-David A. Wade





One of the several colorful locations visited on Ninja Nanny's

quest for the secrets of her past.

1.5 meg on the hard drive...uh-oh, you'll discover that this a Toolbook project, which is notoriously sluggish even on a souped-up system. My own hopes were being raised and lowered faster than Iane Fonda can do knee bends.

This roller coaster of reactions did not stop once the program was booted. No. 11 Downing Street: The Adventures of Ninja Nanny & Sherrloch Sheltie is as odd as its title - it's a spotty melange of a mildly entertaining story, with digressions into 19th-century illustrations, encyclopedia entries, amateurish animation,

The auality of the artwork in 11 Downing Street is extremely variable.

Wrath of the Gods

Windows/Mac

\$69.95

Luminaria 3288 21st St., Suite 64, San Francisco, CA 94110 Phone: (415) 821-0536

All too often, a company's first stab

that making playable, compelling games isn't as easy as it looks. But that's not the case with Wrath of the Gods. Though hampered by a few quirks, most players will come away from it feeling like they got their money's worth— and that's



Charon won't take you across the river Styx without a coin of the realm.

high praise in anyone's book.

The plot of Wrath comes straight out of Greek mythology. You play as a king's grandson, abandoned at birth because an oracle prophesied you'd ascend to the throne during the king's lifetime. But like most folks back then, the king forgot that prophecies can't be

> dodged — a centaur finds you and raises you to manhood, and you set out to fulfill your destiny.

You'll tangle with the Chimaera, Cyclops, Hydra, and other mythic monsters; take a trip to the Elysian fields; sail through the Clashing Rocks; and much, much more. All these exploits are presented as puzles, and while they'll pose little problem to seasoned gamers or inveterate fans of Greek mythology, at least there's a lot of 'em, and an on-line help feature means beginners needri get stuck. The iconbased interface is a snap to use, and because you can't die you're free to explore the very large — and often funny — game world as much as you like.

Though the animation is choppy even on fairly powerful computers, there's so much fun to be had here that it didn't bother me. If you like adventure games or Greek mythology, you'll get a kick out of Wrath of the Gods.

-Stephen Poole



Wacky Jacks

Mac

\$39.95

StarCore (Apple Computer) 20525 Mariani Ave., Cupertino, CA 95014 Phone: (800) 708-STAR (7827)

amily fun and learning are delightfully combined in this title from StarCore, Apple's CD-ROM entertainment/education software line. Gameshow host Wacky Jack is your guide for "Slap Happy," a typical concentration



The attractive interface offers players of any age easy access to the games.

game; "Zingers," a trivia strategy game;
"Blankety Blank," a hangman-style game;
and "Scrambler," a picture puzzle. The
games use a photo album with 500 pictures of people, places, and
things from around the world,
ranging from Red Square
to a poison dart frog.

to a poison dart frog.
Wacky Jacks is targeted toward the whole family, and all ages can play together because each player can select from three levels of difficulty. It's a good idea to check out the picture album before you play.

Game-show host Wacky Jack

know about the pictures, the better you will do. There's plenty of variety in the pictures and questions during play, so learning new things will come naturally.

Parents will be pleasantly surprised to hear the timeless voice of TV announcer Don Pardo, and kids will like the amusing game players and goofy music. Except for the lengthy delay before several audio or animated before several audio or animated with colorful graphics, smooth animation, and high interactivity.

Entertaining and educational, Waeky

some quality time together.

—Lisa M. Howie



Jacks is a great way for families to spend

The Lawnmower Man

DOS

\$69.95

The Sales Curve The Lombard Business Centre, 50 Lombard Rd., London, United Kingdom SW11 3SU Phone: (044) (71) 585-3308

f you enjoyed the movie The Lawnmower Man, you've probably been mighty tempted to pick up the game of the same name. Well, I've "jacked in" to this version of Virtual Reality, and I've got some advice: Don't take this trip.



This intro screen gives you a good idea of what kind of graphics to expect.

The Lawnmower Man is a disjointed, slapdash amalgam of mini-games, and because you're constantly changing your game hat, there's zero chance of immersing yourself in the "adventure."

First segment: As your on-screen character trots along a runway, a female voice tells you when to jump or duck to avoid enemies.

Second segment: Using the arrow keys, you guide a craft through a tunnel — but like the previous section you can only turn, dive, or climb when the voice tells you to. You can easily play both these sequences without even looking at the screen.

Third segment: You're shown several groups of four items, and must pick the one in each group that doesn't belong. Nothing wrong there — except you're on a time limit. I don't know about you, but I don't care to solve logic puzzles with a timer running.



Jump up, slide down – it just doesn't add up to very much fun.

Fourth segment: You listen to, then duplicate, a series of tones. Enough said.

Except for the great soundtrack by Steve Hillage, nearly every aspect of this product is sub-par, from the blocky, lowres graphics to the absence of a password to save your progress. Then again, most players won't stick with this one long enough to make passwords worthwhile.

-Stephen Poole



C.H.A.O.S. Continuum

Windows/Mac

\$79.99

CMC 514 N.W. Eleventh Ave., Portland, OR 97209 Phone: (503) 241-4351

Technology has automated many time-consuming aspects of life, and we should have known that before long

we would be freed from the drudgery of playing games. In C.H.A.O.S. Continuum, Creative Multimedia has come close to creating a game that seems to play itself. Unfortunately,



It's from here that you get messages and download information...unfortunately, you have too little else to do in the game.

most of the action here is in clicking the mouse, waiting...clicking the mouse, waiting, clicking....

The story here is an old sci-fi cliché about members of a future society that builds a really big computer that takes over their minds and plays god. The society in question is a colony located on Titan, one of Saturn's moons, and the

scientists there are trapped in some parallel reality, being menaced by their own deranged computer, named C-HA-O.S. They are contacting you from across space and time in the hope that you can manipulate a

time probe to explore the colony and disable C.H.A.O.S. You move around the colony, receiving messages and downloading information, being led through the game almost every step of the way, In a stab at interactivity, you have to take an "intuitive sound cognition test," which is actually a version of the old game "Simon," in which you reproduce a pattern of sounds and lights. There's also a blaster attached to your probe for use against security drones, but I just didn't see the point.

Ultimately, there's really no need for gaming in C.H.A.O.S.: all you need is a "mouse manipulator."

— T. Liam McDonald



Strike Commander

\$70.05

Origin 12940 Research Blvd., Austin. TX 78750

Phone: (512) 335-0440

S trike Commander has finally been brought to CD-ROM, which is where it should have been all along. In its debut floppy-disk version, it tipped the scales with a required 50+ megs of hard-drive space and a mid- to high-end 486. The game pushed machines to their limits, but delivered plenty of scorching action in the process. Now Origin has taken the burden off your hard drive and put Strike Commander where it belones on CD-ROM.

It seems like years ago (well, actually, it was) that Chris Roberts, of Wing Commander fame, promised a jet-fighter sim that would use a narrative framework and cinematics a la Wing Commander. The world of Stribe Commander is less than 20 years in the future, where mercenary fighter pilots are hired out to the highest bidder. The U.S. is slowly breaking apart, the IRS has its own army, and unrest seethes in every corner of the globe. As a mokie pilot, you find yourself in this messy situation, taking jobs, and working your way up the ladder. Origin has backed this story up with a top-notch simulation of both the F-16 and the forthcoming F-22 fighter jets, featuring beautiful graphics and tough opponents.

Strike Commander includes both speech pack and Tactical Operations (add-on disks released after the original version). The latter brings the total number of missions to 65. Play from the CD-ROM is smooth, even with as little as one meg on your hard-drive. Enhanced memory management, sound, and joy-



The stunning graphics aren't the only good thing about Strike Commander.

stick support round out this package. If you don't care for flashy cinematics in your flight simulators, then Strike Commander is really not for you. But if you like a little story between sorties, it's well worth checking out.

— T. Liam McDonald



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asically, Conspiracy is an old game with fancy new packaging — and, of course, it's on a shiny CD-ROM disc. The core game was released in Europe a couple of years back as KGB; for its new CD-ROM release, KGB has been spruced up with digitized video starring Donald Sutherland, and retitled.



Well, now that you ask..

You play as a fresh young KGB agent in those turbulent times of Soviet Perestroika, and you've been assigned to investigate corruption in the bureau. You'll accomplish this through a pretty standard graphic-adventure interface. although every scene and event in the game is shown through still screens. There's absolutely no animation, so the gaming gets tedious very quickly. Again, Conspiracy is an older game - and it looks it

The video - which serves as a shell around the game proper and features Sutherland as your deceased father - is good stuff, though. Sutherland turns in a fine performance, and the full-screen, full-motion images are very good quality. But while the video is all very serious in tone, the game itself is full of bad "isn't the Soviet Union a funny dictatorship" humor. As a result, you're never sure if this is supposed to be an important, dra-



Interesting characters, but don't waste your time waiting for them to move. There's no animation in the game sequences.

matic game or a light, frivolous one.

In the end, though, it doesn't matter. Despite the good video, there's just not quite enough game here to make Conspiracy worth either your time or your money.

-Matthew A. Firme



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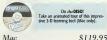
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FDLICATION

M M M M M

3D Tutor

Mac



Zelos! 110 Pacific Ave., Suite 219, San Francisco, CA. 94111 Phone: (800) 345-6777

ne of the coolest things you can do with a personal computer is to create three-dimensional animations like those in Jurassic Park or Babylon 5. However, beginners soon find that 3-D animation is also about the hardest



Model building and other techniques are illustrated with screens from popular Mac 3D programs.



Interactive animated demos help teach difficult concepts, such as camera motion,



3D Tutor shows some of the striking results that can be obtained with textures. thing you can do with a computer.

Now 3-D expert Earle E. Lane has produced 3D Tutor, a CD-ROM course in Macintosh animation basics that answers every 3-D novice's prayer. The heart of 3D Tutor is the interactive tutorials section (detailed in the illustrations). The tutorials take you through every aspect of creating an animation, from building models and scenes to adding motion and special effects. Most topics are illustrated with QuickTime animations of actual program screens exactly the kind of demonstrations that 3-D students need to see. Fortunately, the narration doesn't just read the text on the screen, but adds extra information. As Lane says in his notes to the disc, you should walk through the entire tutorials section first to get a feel for the scope of learning how to create 3-D ani-



3D Tutor's Main Map provides clickable access to all the disk's lessons and modules.

Inst as useful are the 11 program demos included on the disc. Most of the standard Mac 3-D programs are there: Infini-D, MacroModel, Ray Dream, Stratavision, Swivel, and others, True, you won't get to try out the latest demo versions of these programs, and some heavy-hitters are too recent to be included here (Strata StudioPro and Working Model come to mind). Also conspicuously absent is a demo of the 900-pound gorilla of Mac 3-D animators, Electric Image Animation System (a \$7500 product).



One of the animations in 3D Tutor's Showcase section.

Nonetheless, the ability to sample several 3-D applications from one source is a fantastic time- and money-saver.

Note that 3D Tutor has heavierthan-normal hardware requirements: a Macintosh with at least 5 MB RAM (8 MB RAM to run most of the demos and the quick tour), a floating-point processor (no Performas or Quadra 605s, please), a

> 13-inch or larger color monitor. and System 7.0 or later. A double-speed or faster CD-ROM drive is pretty much a necessity. too, because the tutorials run as slow as Heinz ketchup on older drives.

If you're thinking of getting into Mac 3-D, get 3D Tutor before you buy any application. There's no better way to find out if you have what it takes to be a 3-D god. Even if you're one already, the demos and examples may open your eyes

to some new ideas.

- Steven Anzovin



WordSmart: Volume C

Windows

\$64.95

Smartek P.O. Box 366, La Jolla, CA 92038 Phone: (800) 858-WORD

ducational software is extremely popular right now, and WordSmart isn't about to hinder that. A smart, highly focused package, WordSmart attempts nothing more or less than to improve



You can turn off the Automatic Discussion but leave it on - it's interesting.

your vocabulary. Given the fact that most people's idea of an adjective complement is "cool" or "awesome," this disc is on a worthwhile mission.

You can choose from five exercises. Multiple Choice (see screen above) runs through a list of words on the left side and a set of five semantic choices in the main box. Questions and choices are read aloud by the narrator.

When you click on the right answer, the Audio Discussions screen appears (see below), unless you've opted



The Discussions list offers a surprising amount of detail on each word's etymology.

otherwise. This screen narrates the word's synonyms and its history. The latter is both helpful and fascinating, and should help inculcate a further interest in the language, which in turn always helps usage.

The screen below shows the Column Matching options. Here, you Volume C are the Flashcards and Laser Review options. In the former, you're given a word from the list, and you're to state or think of the correct answer before it appears automatically (there's no keyboard or mouse activity here, nor any evaluation). Laser Review is a simplified version of the classic arcade



As you drag words from left to right, they reposition themselves beside their counterparts: a strong design for interactive learning.

drag the word from the left column to its corresponding meaning on the right. The screen below reveals the program's Sentence Completion exercise, in which you fill in the blank with the synonym for the all-caps word shown above it. The narrator reads the synonym; all you have to do is spell it properly.

Also included in WordSmart:



The top right corner shows your progress, with the standard gold star vs. red X.

game Space Invaders, in which you click on the right synonym for the narrated word as quickly as you can.

Ten volumes of WordSmart are available, with difficulty ranging from 4th grader (Volume A) through first-year college student (Volume J). There isn't anyone who couldn't learn a great deal from an appropriate volume, and the entire series must be highly recommended. It even comes with a lovely classical soundtrack. WordSmart, as a whole, is very well done.

- Neil Randall



Always Arthur

Windows/Mac

\$49.95

Media Vision 47300 Bayside Pkwy., Fremont, CA 94538 Phone: (800) 684-6699

nofessor Gooseberry and friends take young readers on a word-filled adventure in this multi-activity readingskills builder. The disc features four sequenced reading activities. In "Look and Listen," children hear a heartwarming story about a dog named Arthur, while pictures display and a musical score plays in the background. (There are no words to read in this section.) In "Read With Me," children hear the story, but read along as words appear on screen. Youngsters page forward or backward through the

Unlike Broderbund's Living Books series, words in an Always Arthur screen are not highlighted as they're read, and story pages don't offer any playful hidden hot-spot surprises.

"Think About the Story" returns youngsters to the narrative, this time drawing attention to important words and ideas. Children must click on story text to answer questions (which may test



The main menu offers four early-learning activities text by clicking on special icons. for building reading and comprehension skills.

for meaning, association, or sequencing), In the final activity, "You Read," youngsters again read the story, but without the aid of narration. If children need help, they can click on words to hear pronunciations.

Always Arthur's four activities are designed to make reading enjoyable and meaningful. Kids progress from listening to independent reading, building vocabulary in the process. A "student management" section tracks performance. However, while the program offers solid reading instruction, the limited playfulness of the four activities gives this CD-ROM more value as a classroom learning tool than a use-at-home program.

— Carol S. Holzberg



Mario's Early Years CD-ROM Collection

DOS \$49.95

The Software Toolworks 60 Leveroni Ct., Novato. CA 94949 Phone: (415) 883-3000

he world's most famous plumbers, Mario and Luigi, are on a mission to provide edutainment value in this collection of the Early Years series, Each of the three games included is divided into several activities that foster or reinforce basic skills

"Fun With Numbers" steers away from straight computation, but that's all right because young kids don't need that kind of training. Instead, they learn to group objects, separate items from a set, and receive encouragement to think about numbers through such classic kid songs as "This Old Man."



When Mario's the leader, kids join in.

In "Fun With Letters," kids can choose from several excellent phonicbased activities, such as Blending and Building. But a poor design weakens the Story activity. Kids can only follow highlighted words through a simplistic story there's no opportunity for interaction. "Preschool Fun," the third game, repeats some of the skills given so much depth in the other two games.

A few false steps detract from what could be an excellent collection. "Color World," for example, mixes the concepts of colors and shapes. Some kids, especially visual learners, may find this confusing. As a collection, this adds nothing new to the floppy-disk versions. But even with dull spots, the cost advantage is clear (about 40 percent less than buying games separately). And with Mario along for the ride, kids are sure to give it a try.

- Peter Scisco



"Fun with Numbers" offers a nice variety of activities.



Sound It Out Land

Windows

\$49.95

Conexus 5252 Balboa Ave., Suite 605, San Diego. CA 92117 Phone: (619) 268-3358

as in apple, B as in bat, C as in cat Using phonics is a tried-andtrue method of teaching early reading





ing animals, each act-

stage. Sing-Along Sam

ing as host of one

teaches letter sounds; Vowel Owl handles the sounds of short vowels: Reading Robot helps kids put vowels and consonants together to make three-letter words; and Toucan Read focuses on word recognition.

Sound It Out Land is a graphically pleasing program, appropriate for younger children, but somewhat static in the animation department. And there's a lack of variety in the words presented in the latter two exercises, but the repetition here will no doubt work as reinforcement for the youngest learners. Naturally, this title has more value and extended life when used with groups of children (e.g., preschool or elementary school).

Despite some flaws, Sound It Out Land works well because of its strength in the audio department. The original music and narration are abundant, and first-rate in quality. Each stage features several catchy songs - in my small test



Sing-Along Sam leads the songs in stage one. The music here is first-rate.

group, the kids chimed in with nearly every tune, memorizing letter sounds as they repeated the lines.

Sound It Out Land does a solid enough job teaching and entertaining to warrant a recommendation. It also gets a thumbs-up where it counts: kid appeal. - Lance Elko



The Rest of Mark Twain

Mac

\$29.95

Queue 338 Commerce Dr. Fairfield, CT 06430 Phone: (800) 232-2224



The disc contains the complete text of The Adventures of Tom Sawver. The Adventures of Huck Finn, The Prince and the Pauper, and Pudd'nhead Wilson, plus some of Twain's short stories and speeches. Several options are available while reading the text, including marking pages and making notes in the margin for future reference. You can also click on words for definitions, search for occurrences of words or phrases, and mark text. The multiple-choice tutorial exercises available are pretty basic, but may prove helpful for a first-time reader.

Selected chapters are available in picture-book style for young children. Unfortunately, the pictures are not animated, the artwork is nothing spectacular, and there is only one narrator. The narrator changes his voice to fit each

Art used in the picture books, presented slideshow style, is the only graphic element on the disc.

character -- annoving when he's reading Aunt Polly or Becky, and distasteful when he's reading Jim.

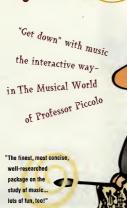
These picture books are out of place and of little use on a disc geared for older students. A biography of Twain would have been helpful, as well as some history to provide context. But The Best of Mark Twain provides less information than you'll find at the library, and the disc doesn't break any new ground in the electronic-book category. If you want to study the works of Twain, our advice is to take a trip to your local library and pick up some real books.

_ Lisa M Howie



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Product Information Number 182

Gus Goes to Cybertown

Windows/Mac

\$54.95

Modern Media Ventures 1317 Hyde St., Suite 4, San Francisco, CA 94109 Phone: (800) 530-5080

This animated cartoon adventure is built on the same model that supports other interactive kids' software. Children move through a series of scenes, clicking on screen objects and playing simple games.

Gus, a palooka of a pup, serves as guide through Cybertown, the fictional home of the Cyberbuds. Finding these critters makes up the program's main game, as they hide in any of several places: a grocery, a pet shop, a laundry, a toy store, and a park.

Gus Goes to Cybertown claims to



Lots of creatures await you in the Cybertown pet shop.

present interesting facts and learning in a play environment, but the presentation puts those objectives at risk. In the pet store, for example, kids may hear from a Cyberbud that the Hawaiian islands were formed by undersea volcanoes. True enough, but there's nothing in the game's environment to reinforce that point. Without that connection, a fact becomes a factoid.

The game's interface can also be

confusing. To enter a place, kids click on a door; however, to leave they must click on a small "exit" box. Some of the smaller games are a little off. An example is the matching game in the grocery. Kids must match pictures with items they see on the shelf to fill their grocery cart. On the higher level, they match words with pictures. But the program errs with assumptions such as "pepper," which most kids will equate with a pepper shaker, not the exotic red vegetable.

With shelves full of interactive discovery programs, there's little to distinguish this game. Gus may be a good old dog, but he's no leader of the pack.

- Peter Scisco



Ping and Kooky's Cuckoo Zoo

CA 94404 Phone: (800) 245-4525

Mac \$49.95

Electronic Arts 1450 Fashion Island Blvd. San Mateo.

M ove over, Barney! Ping Panda and Kooky Cuckoo are here to help kids (ages 3-6) meet the animals at Cuckoo Zoo. Children can board the zoo train, control engine speed, sound the train's bells and whistles, and choose which direction to turn at intersections. As they wind their way through the zoo, they can stop at any of four habitats (Savannah, Rainforest, Polar Park, and Farm) where they meet friendly animals and play educational games.

For example, when you arrive at the Savannah, you encounter a lion, hippopotamus, zebra, elephant, giraffe, and pelican. Select an animal to hear its name and the sound it makes, see its word form in a pop-up label, and watch a short animation complete with wacky sound effects and music. If you click on Kooky, you'll play Animal Mix-Ups,



At Polar Park, Ping Panda asks children to find the penguins.

where you must restore creatures to their correct appearance.

Activities in other zoo settings reinforce letters or numbers, or ask children to color each of the animals. All zoo games feature three levels of difficulty, making the program suitable for children of various ability levels.

A fifth train stop, Cuckoofest, lets youngsters sing along with the zany Cuckoo Zoo Chorus. Most melodies in

> this repertoire are hardly recognizable, but kids enjoy making the animals sound off. Cuckoofest also invites children to compose their own tunes. A special replay button plays the melody (but composers can't save a song for future reference). Cuckoo Zoo's animated train, friendly animal critters, and pakyıl educational activities build

a variety of early-learning skills. Kids are sure to enjoy the ride.

— Carol S. Holzberg



Sitting on the Farm

Mac

\$39.95

Sanctuary Woods 1875 S. Grant St., Ste. 260, San Mateo, CA 94402 Phone: (800) 872-3518

A little girl having a peaceful lunch on the farm finds a bug on her knee. But her attempts to get rid of the unwanted guest only add to her problem, with humorous results.

In its simplest use, kids and parents can follow along with this charming children's story, told in rhyme and accompanied by delightful illustrations, as it's read by a computer narrator (female or male). On a slightly more sophisticated level, kids can read along with the disc. Using the program interactively lets kids and parents stop to explore or repeat a phrase, or select particular pages to visit.

Read-Along mode encourages kids to expand their vocabulary, as they can click on pictures to learn new words. A word-balloon icon appears on the screen when a child moves the cursor over any active item. For young children in particular, this eliminates the need to hunt down hidden hotsnots.

In the program's writing segment, kids fill in the blanks to accompany illus-



It all starts with a bug, and pretty soon the whole farm joins in.

trations. This excellent exercise relieves the anxiety many kids feel about writing. It encourages them to play with the language, to find rhymes and build a story with their own imagination. They can print their stories to color and keep.

Sitting on the Farm also explores musical composition. Kids can record themselves singing along with the disc to play back later. The recording feature is also available in the reading segment, which helps kids with pronunciation (in French or English, no less).

A delightful program, Sitting on the Farm uses excellent multimedia techniques that add fun and learning to an original and endearing story.

— Peter Scisco



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 ■ Home, Sweet Home (\$69)
 ■ Mischievous Marvin • English (\$49)

■ Me. Myself, and I (\$69)

Product Information Number 186

APPLICATIONS

N M M M

omputerized daily planners and PIMs (personal information managers) have sprouted like mushrooms during the past few years. They range from simple calendars and "to do" lists to more complex, integrated schedulers and organizers. Now, this software category is entering the world of CD-ROM.

When it comes to the bells-and-whistles component of personal-planning software, Media Vision's Personal Daily PlanIt is clearly a multimedia heavyweight, Incorporating full-motion video, digitized voice, music, animation, still photography, text, and voice recognition, the PlanIt system goes further than any other PIM to make multimedia a genuine ingredient of its operation.

Media Vision has so far released three titles in the *Planlt* family, with a CD-ROM version and a floppydisk version (SRP: \$49.95). The operating engine is identical

> A new photo appears each day. There are more than 400 images from which to choose.

The Personal Daily Planit



Windows

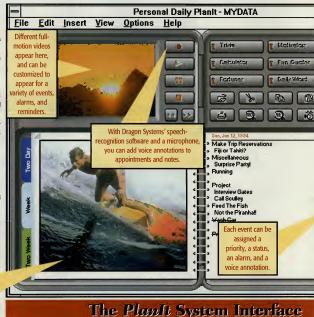
\$59.95

Media Vision 47300 Bayside Pkwy., Fremont. CA 94538 Phone: (800) 684-6699

for all titles, and it's one of the most versatile and flexible we've seen.

The three packages released to date

are PlanIt Earth, featuring more than 400 nature images and wildlife videos presented in association with the



National Wildlife Federation; Planit Adrenaline, with more than 400 photos and videos of extreme sports action in association with action film company Warren Miller Entertainment; and Plantl Paradāse, which includes 400-plus images and videos of swimsuit models from Swimwear Illustrated magazine.

There's a variety of unique components that really sets the *PlanIt* series apart from the ordinary PIM or daily planner. First, the use of video clips, dig-

Birthdaye

File Mar

(1) A &

1 A &

(2) A A

2 A &

3 A &

2 / A &

3 X A &

8

ToDo List

Elide Ehom

These launch buttons can be changed to give you immediate access to the software that you most often use.

Use the tool-button icons to move around in *PlanIt* and to handle house-keeping chores.

itized voice, and photography brings the software to life. Second, the interface is very-well conceived and laid out; it's possible to learn your way around without



To attach a "ToDo" event icon to a date, drag the image to the date and click OK.



Switch to a monthly calendar for a nice bit of wallpaper...

using the manual, even though there are many different integrated functions. And, most importantly, the *Planlt* software can be customized in a remarkable number of ways.

One of the unique capabilities of Planlt is that it can be controlled by voice command using Dragon Systems' Talk-To Plus speech-recognition software that comes with the package. The soft-

ware includes a vocabulary of voice commands that works in Windows as well as in the Planti program. In addition to Planti's functionality, f

The weekly calendar view can be expanded to fullscreen. Or, you can choose the two-day, two-week, or full-day format.

ment features that may or may not be of interest to users: a collection of jokes that carries a National Lampoon label, daily trivia messages from Isaac Asimov's Book of Facts, a selection of forune-cookie aphorisms, and a selection of feel-good motivators. Each is presented visually and with digitized voice. Unfortunately, the intonation and delivery of several of the voices is a bit too close to verbal Muzak — but you can always turn them off.

The images, videos, and other multimedia components of the three *PlanIt* versions are interchangeable, and Media



...or do the same for a full-year view. Months and years can be cycled quickly by clicking on the forward or backward buttons.

Vision plans to release additional versions.

Once you install PlanIt on a hard drive, it's not necessary to keep the CD-ROM in the drive. But the entire PlanIt system — with its video and audio overhead — uses more than 30 megabytes of hard-drive space.

For those who want a simple organizer or PIM, Planti will probably be too much of a good thing. But for multimedia fans who want the richest and most entertaining PIM available, we give this series a hearty recommendation.

- Selly Bateman



RESOURCES

M M M M

There's a lot to like in Corel's CD Power Pak. You get a CD audio player and librarian, digital sound editor, Photo CD viewer/image converter, clipart organizer, handy wallpaper flipper, a fast CD-ROM cache utility, and a "system browser" that tells you more than you ever thought you'd want to know about your computer. You get the CD-ROM version of CorelSCSI 2.0 with enhanced CD-ROM drivers for a variety of CD ROM players. There's also 100 sample Photo CDs from Corel's excellent library of stock photos, and an extra

Corel CD Power Pak

Windows/DOS

\$99

Corel 1600 Carling Ave., Ottawa, Ontario, Canada K1Z 8R7 Phone: (800) 772-6735

CD player, and command line utilities for controlling the CD player.

CD Power Pak includes the CD-ROM version of CorelSCSI 2.0. Installing the Corel SCSI drivers may seem confusing, especially if you already have working CD-ROM drivers, but it lets you replace MSCDEX (which is out of date unless you have DOS 6.x) with CorelCDX, which supports all MSCDEX options, including CD-ROM sharing drives, optical drives, removable drives, printers, and tape drives (tape backup software included), and has TWAIN drivers for most scanners, and includes all the Power Pak utilities too.

If you have at least a megabyte for the disk cache (if you want to see any real difference), the CorelCDX cache gives you between 20-50% increased speed, at least according to my informal tests. Of course, you get the most benefit if you



disc full of digital sound files. To add to this embarrassment of riches, Corel throws in some quality Koss headphones.

CD Power Pak is Windows-centric, but there are goodies for DOS users too, including a DOS version of the audio with Windows for Workgroups, and includes built-in CD-ROM caching. (See "Speedy CDs," in the Fall 1993 issue for more background on caching.) The full version of CorelSCSI adds SCSI drivers for writeable CDs, hard

have a single-speed CD-ROM drive. Even though DOS 6.2 includes the 5.0 version of Smartdrive. which now caches CD-ROMs, Corel's built-in caching appears to have better look-ahead, so that it preloads data from the CD-ROM even before vou need it. It also caches the directories of the CD-ROM. which avoids wasted time while the CD-ROM drive slowly wags its head from directory tracks to data tracks, and back again.

The Corel Book System Browser gives you 32 pages of technical details about your computer, DOS, and the Windows environment. It's the most complete live reference tool of its kind, and it's invaluable for troubleshooting

and technical support.

Also included is Mosaic, a clip-art librarian which gives you a thumbnail view of all the art in a selected directory. You can double-click on an item to launch your favorite Photo CD viewer or editor. Mosaic also lets vou build libraries of compressed clip art. You can print these thumbnails too, and build up a reference of all your clip art.

Photo CD Lab is a simplistic but valuable tool that lets you read and display Photo CD images in any size, even full screen, and features a slide-show option too. Once you've got the image, you can convert it to gray tones, or up and down in color resolution. You can save the image to your hard drive in a variety of bitmap formats, including TIF,



Photo CD Lab views and converts Photo CD images from your CD-ROM player.

some of the best I've seen for playing and cataloging your audio CDs, with

> more features than a high-end tabletop CD player, and a slick user interface. You can enter all the names, tracks, and descriptions for your discs, and be able to call up any selection - just like having a digital iukebox.

The digital sound editor is a joy to run; just

open a .WAV file, and you see the waveform on screen. You can drag to select a part of the file, and cut and paste as if you were using a word processor. You can even cut and paste between differ-

ent sound files, and speed up or slow

down the recording. With some CD-

directly to disk.

ROM players, you can even record audio

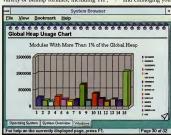
All these tools bear Corel's distinc-

WinDAT is a handy digital sound editor.

tive quality design and excellent user interface. While shareware substitutes exist for most of these programs, it would be difficult to come up with a better, more integrated way to get the most of your CD-ROM drive, nor could you register all those shareware programs and get Corel's excellent telephone support for the same low price.

--- Charles Brannon





System Browser; your personal system detective.

PCX, BMP, and GIF, ready for editing with your favorite paint program.

You can also convert any Photo CD picture into wallpaper, and use Wall-Paper Flipper to randomly display the

images when vour computer starts up. Corel includes a slideshow screen saver, too. The CD

Audio tools are



Audio Player resembles a high-end stereo component.

Photo Factory Windows

\$79

The Multimedia Store 5347 Deitrich Rd. San Antonio, TX 78219 Phone: (800) 597-FOTO

hoto CD offers the promise of highquality color scanning for your PC - at least in principle. If you get a roll of film developed onto Photo CD, you don't have any way to view or process the images, unless you also buy some Photo CD software. An introduction to Photo CD appeared in the Winter '93 issue of CD-ROM Today, and the Spring '94 issue discussed the various image editors available.

A new kid on the block is Photo Factory. It's a versatile tool for viewing. arranging, and processing Photo CD images. Setting up a slideshow is as easy as dragging images from the Photo CD contact sheet (see below) onto the slideshow editor. You can also bring to

detail, you zoom in by a factor of two or four. Instead of simply blowing up the pixels like you get with other image editors, Photo Factory goes back to the CD-ROM and reads the next higher resolu-

tion - just like blowing the image up on a photographic enlarger. You can flip the image from left to right, top to bottom, even rotate it.

The filters are

the most fun to use: dimensional texture. Photo Factory can enhance the detail and

bring out the fine details of the image at four different levels (heavy, medium, light, and sharpen). Special effects include Edge Detect, a kind of tracing. in six varieties (Laplace 1, 2, 3, Gradient, Horizontal Edges, and Vertical Edges). One of my favorites is the Emboss filter, which "stamps" your image into sheet

> if that's not enough, the adventurous can explore the User Defined filter

The color manipulation tools allow you to correct for underexposed or overexposed photos, remove color shifts (such

as a green



Photo Factory's Media Windows is your image control center.

bear powerful image processing and color correction tools to customize the image to display best on your monitor.

Basic image controls let you crop a Photo CD image by selecting only a portion of the original. If you want more

cast), and correct for poor contrast. While Photo CD albums won't have these problems, your photos (and mine) may need all the help they can get.

Even if you don't have Photo CD capability or any Photo CDs handy,

Photo Factory won't disappoint. It allows the importing and exporting of any image in either Windows Bitmap, DIB, TIFF, Targa, IPEG/IFIF, GIF, and PCX formats. The IPEG format is especially



Before and After: The Emboss filter, an easy way to add three-

good for reducing the disk size of photos. Slideshows can be saved to disk and distributed on floppy disks, or converted

into Windows screen savers. You can add colored text in any Windows font, and have MIDI or WAV music play automatically with each slide. You can also print the contact sheets or images.

Photo Factory is a fine, all-around tool for image processing. There are more expensive and feature-packed programs available if you need to add your own graphics or edit individual portions of photos, and more elaborate slideshow programs such as Microsoft's PowerPoint offer better slide transition effects, but Photo Factory delivers on its promise: a full set of image tools, with an easy to learn and

straightforward user interface.

'n The tools in

the Slide Image editor give you added control over vour slide show.

— Charles Brannon



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Enjoy these Windows / Mac multimedia CD-ROM titles from Multicom.

RESOURCES

N W W

PhotoLab, Volume 1

Windows/Mac

\$229

Creative Data 13610 N. Scottsdale Rd., #266, Scottsdale, AZ 85254 Phone: (800) CDROM54

PhotoLab isn't a bad-looking bunch of pictures. The 100 images, in both JPEG and TIFF formats, are eye-catching



PhotoLab's browser displays four thumbnail photos at a time.

and are royalty-free. The package also contains the U-Lead Browser utility, which performs several useful tricks.

The 100 photographs (a 25-photo preview of the second Photo Lab volume is included) tackle standard subjects, particularly nature shots, famous locales, and textures. Technically, the photography is excellent, but if you're hunting innovative composition or unusual subject matter, you might be better served elsewhere.

The U-Lead Browser has a slideshow for viewing selected shots, a handy Batch Manager for keeping up with pictures you're using, and a screen capture utility.

Still, the question here is one of cost. Although the photos are entirely respectable and the added bells-and-whistles are nice enough, you have to look at the price tag. Even though the images are royalty-free, \$229 is a steep price.

—Phill Powell



this perspective shot of the Eiffel Tower.



Picture Factory Set #1

DOS/Windows/Mac \$4

Photodex 1781 Barcelona St., Livermore, CA 94550 Phone: (800) 377-4676

Picture Factory's first photo library in confined to the usual subject matter such as sunsets, cityscapes, and children. There's also a man smoking ten cigarettes at once, office supplies on parade (hot shots of staplers and paper clips), and a pair of panties stuffed with currency. You know, the usual photo collection stuff.

The 2659 images (all of which are professional quality) can be used royalty-free and are retrievable through Photodex's elegant search engine. The images are split into 70 categories, and can be called up by clicking categories or typing in descriptions of what you're after.

Occasionally, searches turn odd, such as when we went looking for a category we spotted called Body Parts. We saw pix of Raggedy Ann and Andy, the first lunar landing, and a butt-ugly ashtray. The searches are designed, we learned from Photodex, to be more inclusive than exclusive, and that's why you get the occasional odd match. At least it errs on the side of giving you more.

The program incorporates niceties



Shopping for pictures? Picture Factory Set #1 has 2659 of 'em.

like a slideshow that runs series of pictures in continuous loops and a viewing option that offers thumbnails in two for-



This surrealistic view of the ocean features a dramatic late afternoon sky.

mat sizes. For a closer look at *Picture*Factory, check out the samples from our last issue of *The Disc*.

- Phill Powell



1000 of the World's Greatest Sound Effects

Windows/Mac

\$49.95

InterActive Publishing 300 Airport Executive Park, Spring Valley, NY 10977 Phone: (914) 426-0400

t hardly sounds like an exciting CD-ROM - I mean, how many of these things do we need? - but this one is stronger than anything similar I've seen. Not only are the sound effects on 1000 of the World's Greatest Sound Effects well-chosen, but they also come with several intelligent interface designs. Many CD-ROM collections contain plenty of source materials, but they make it nearly impossible to find what you want. Here everything is categorized, with clear titles, and often even a helpful note. Just click on Play. Or you can search from an extremely well-designed dialog box.



The Sound Studio isn't fancy, but it links smoothly to the Waveform Editor.

But there's more to the disc. The Multimedia Sound Studio offers full control over the playback of WAV or MIDI files, or your audio CDs. Use the Waveform Editor to alter sounds to your hear's content.

A terrific, all-in-one package designed expressly for first experiments with sound.

— Neil Randall

Rating: 🎨 🌣 💸 🗞

Corel Gallery

Windows

\$59

Corel The Corel Bldg., 1600 Carling Ave., Ottawa, Ontario, Canada K1Z 8R7 Phone: (800) 772-6735

There are clipart collections and clipart collections... and then there's the Corel Gallery of 10,000 clipart images for



A mouth-watering dessert from the food category of Corel Gallery's clipart.

This vast image library of professionally executed clipart (of which 6000 pictures are in color) is logically arranged over 50 categories, covering everything from business graphics to celebrity portraits. You can browse through the 350-page reference directory or see how the images look on screen by using the Visual Clipart Manager, an elegant and easy-to-use viewer. There's something here for anyone who wants to add a little flair to their memos, faxes, brochures, presentations, neweletters, or reports.

You can drag and drop any chosen image into an OLE compatible application (such as WordPerfect for Windows, AmiPro, MS Publisher, or Harvard Graphics), or convert it into many of the most commonly used file formats for other word processors or DTP packages. So if you're serious about your word processing, graphics, or desktop publishing projects, this would be a very worthwhile addition to your toolkit.

—David A. Wade

Rating:



NEWFRONTIERS TORR HAIffeld

Plug and Play: It's About Time



It's a scandal. Vendors say 20 to 40 percent of their multimedia upgrade kits are returned for refunds because baffled

users can't install the sound cards and

CD-ROM drives in their PCs. One company watched its stock plunge in the first quarter of this year because so many of the kits sold over the holidays were returned by frustrated buyers in January.

Technical support lines are swamped with calls, and vendors are alarmed at the rising costs of maintaining support staffs. Microsoft says that nearly half the calls placed to its

Windows help lines are from people trying to install or configure new hardware and software.

The situation is getting so serious that it's viewed as a major obstacle to future market growth. "To perform even common configuration tasks, the user must understand arcane terms that describe the technical details of the inner workings of the PC, such as IRO lines, DMA channels, base mem-

ory addresses, I/O ports, and more," says a recent Microsoft report. "Cryptic records of the PC anatomy such as AUTOEX-EC.BAT, CONFIG.SYS, and *.INI files must be examined and modified to make most changes. The process is so intimidating that it discourages nearly all users from upgrading components of their PCs or adding some new capability without expert help."

Past attempts to address this problem - such as IBM's MCA and the alternative EISA - didn't catch on with most users. As a result, the system architecture of today's PCs has scarcely changed since 1983.

Finally, however, a movement is underway to bring PCs

into the 1990s. Because this push is backed by Microsoft and Intel — the two powerhouses of the PC industry — it appears almost certain that the problem will be solved once and for all.

The solution, called Plug and Play, lets you add new boards and devices without flipping DIP switches, setting jumpers, or fiddling with configuration files. During boot-up, the computer checks to see what devices are installed, then automatically loads drivers and resolves any resource conflicts.

Too good to be true? Well, there's a catch. To get the most from Plug and Play, you'll probably have to buy a new computer, an updated operating system, and new boards and devices. Although Plug and Play is compatible with today's PCs, Windows 3.1, and existing peripherals, you'll have to sacrifice some features and convenience. In general, the more old stuff you've got, the less you'll benefit from Plug and Play.

Specifically, Plug and Play requires a PC with a new BIOS; a new or updated version of Windows or OS/2; and new devices and drivers that support the standard. Some recent PCs have upgradable BIOS chips, so you may be in luck. The next ver-

> sions of Windows and OS/2 will incorporate Plug and Play, and there will also be an upgrade for Windows 3.1. Plug and Play requires manufacturers to redesign their circuit boards and rewrite their drivers, so those changes will be phased in over the next few vears. By the end of the

Plua and Play lets you add new boards and devices, then resolves all resource conflicts. Too good to be true? Well, there is a catch....

decade, PCs might actually be easier to set up than VCRs.

Plug and Play could be the best thing to happen to PCs since the graphical user interface. It's scandalous that these long-neglected improvements are motivated by skyrocketing return rates and tech-support costs instead of concern for users. But at this point, we'll gladly welcome any help we can get.

Tom Halfhill has been writing about the computer industry since 1981. A former editor of Compute Magazine, he is currently senior editor for the West Coast Bureau of Byte Magazine. Email: THALFHILL@BIX.COM.

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